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sedell@dutragroup.com[sedell@dutragroup.com]; sejal@baykeeper.org[sejal@baykeeper.org]; semion@wra-ca.com[semion@wra-ca.com]; shanksranch@frontiernet.net[shanksranch@frontiernet.net]; sheila@pier39.com[sheila@pier39.com]; Thomas, Shryl@DOF[Shryl.Thomas@dof.ca.gov]; sklow@portoakland.com[sklow@portoakland.com]; sknight@saveSFbay.org[sknight@saveSFbay.org]; McConnell, Sue@Waterboards[Sue.McConnell@waterboards.ca.gov]; smichelson@erscorp.us[smichelson@erscorp.us]; snoble@nobleconsultants.com[snoble@nobleconsultants.com]; sorensen@csus.edu[sorensen@csus.edu]; spnovotny@comcast.net[spnovotny@comcast.net]; Schuchat, Sam@SCC[Sam.Schuchat@scc.ca.gov]; Shapiro, Scott @downeybrand.com[sshapiro@downeybrand.com]; sterrill@harveyecology.com[sterrill@harveyecology.com]; steve.lindley@noaa.gov[steve.lindley@noaa.gov]; Siegel, Stuart[stuart@swampthing.org]; Wang, Susan@NOAA[susan.wang@noaa.gov]; swinkler@sigov.org[swinkler@sigov.org]; sybq@chevron.com[sybq@chevron.com]; Tanis.J.Toland@usace.army.mil[Tanis.J.Toland@usace.army.mil]; tclay@co.marin.ca.us[tclay@co.marin.ca.us]; teresalpacheco@aol.com[teresalpacheco@aol.com]; terry.iwagoshi@westonsolutions.com[terry.iwagoshi@westonsolutions.com]; Gandesbery, Tom@SCC[Tom.Gandesbery@scc.ca.gov]; Keegan, Thomas@aecom.com[Thomas.Keegan@aecom.com]; Kendall, Thomas@USACE[Thomas.R.Kendall@usace.army.mil]; Jabusch, Thomas@sfei.org[thomasj@sfei.org]; Timothy.J.Warner@us.army.mil[Timothy.J.Warner@us.army.mil]; tommy404@sbcglobal.net[tommy404@sbcglobal.net]; trevor415@gmail.com[trevor415@gmail.com]; tshore@tirn.net[tshore@tirn.net]; ttrexler@jsanet.com[ttrexler@jsanet.com]; tuglife619@aol.com[tuglife619@aol.com]; ulrichluscher@sbcglobal.net[ulrichluscher@sbcglobal.net]; vallejoyachtclub@sbcglobal.net[vallejoyachtclub@sbcglobal.net]; Frey, Vicki@Wildlife[Vicki.Frey@wildlife.ca.gov]; vic.george@gmail.com[vic.george@gmail.com]; victorgeorge@EGEngineering.com[victorgeorge@EGEngineering.com]; vince@carducciassociates.com[vince@carducciassociates.com]; walt.sykes@ca.usda.gov[walt.sykes@ca.usda.gov]; walteryp@aol.com[walteryp@aol.com]; washburnt@saccounty.net[washburnt@saccounty.net]; wdarsie@ksninc.com[wdarsie@ksninc.com]; WernerHoyt@aol.com[WernerHoyt@aol.com]; William.H.Guthrie@usace.army.mil[William.H.Guthrie@usace.army.mil]; William.N.Brostoff@usace.army.mil[William.N.Brostoff@usace.army.mil]; wpavao@cleengineering.com[wpavao@cleengineering.com]; wallgren@dutragroup.com[wallgren@dutragroup.com]; Grader, Zeke[zgrader@ifrfish.org]; kristin.joseph@mail.com[kristin.joseph@mail.com]; Aarreberg, Arn@Wildlife[Arn.Aarreberg@wildlife.ca.gov]; SBodensteiner@haleyaldrich.com[SBodensteiner@haleyaldrich.com]; Ryan.hernandez@dcd.cccounty.us[Ryan.hernandez@dcd.cccounty.us]; restaite@aol.com[restaite@aol.com]; Ryan_Olah@fws.gov[Ryan_Olah@fws.gov]; Melby, Jeff@SCC[Jeff.Melby@scc.ca.gov]; sscoggin@sfbayjv.org[sscoggin@sfbayjv.org]; Al.Paniccia@usace.army.mil[Al.Paniccia@usace.army.mil]; Cynthia.J.Fowler@usace.army.mil[Cynthia.J.Fowler@usace.army.mil]; Jessica.L.BurtonEvans@usace.army.mil[Jessica.L.BurtonEvans@usace.army.mil]; sara.azat@noaa.gov[sara.azat@noaa.gov]; kristin.joseph@mail.com[kristin.joseph@mail.com]; dan.sabalesky@shell.com[dan.sabalesky@shell.com]; scarroll@ducks.org[scarroll@ducks.org]; cgarner@ducks.org[cgarner@ducks.org]; jkrause@dutragroup.com[jkrause@dutragroup.com]; bill@lindmarine.com[bill@lindmarine.com]; Squires, Kim@fws.gov[kim_squires@fws.gov]; pc@clausenengineers.com[pc@clausenengineers.com]

From: Goeden, Brenda@BCDC

Sent: Tue 2/24/2015 12:09:27 AM

Subject: LTMS Project Coordination Meeting - Dredging Project Chart

[LTMS Project Coordination Agenda20150224.doc](#)

[LTMSDredgingChrt20150217.xls](#)

Good Afternoon All,

Please find attached the project tracking chart for 2015. You will note that several columns are not yet filled out, but we can build on that over time. The list shows a number of projects in the 75 K cy + category this year (High lighted in green), so we will discuss these before the smaller projects tomorrow.

The meeting will be held on the 10th floor in our offices. Looking forward to seeing you there.

Brenda

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Brenda Goeden
Sediment Program Manager
San Francisco Bay Conservation and
Development Commission
455 Golden Gate, Suite 10600
San Francisco, CA 94102
415.352.3623 D
415.352.3600 G
415.352.3606 F

BCDC has MOVED! Please note the new address above.



LONG TERM MANAGEMENT STRATEGY

Project Coordination Meeting Agenda

24 February 2015: 10:00am – 12:00pm

BCDC Civic Center Offices
455 Golden Gate Avenue, Suite 10600/
350 McAllister Street (one building, two entrances)
San Francisco, CA

- | | |
|--|-------|
| 1. Welcome and Introductions | 10:00 |
| 2. Agenda and Meeting Purpose | 10:10 |
| 3. Overview of Available Beneficial Reuse Sites | 10:20 |
| • Montezuma Wetlands | |
| • Cullinan Ranch | |
| • Eden Landing | |
| 4. Discussion: Maximizing Beneficial Reuse | 11:00 |
| • SediMatch | |
| 5. Update on NMFS LTMS Programmatic Consultation | 11:15 |
| 6. Dredging Project Review | 11:30 |
| 7. Final Thoughts/Questions | 11:55 |
| 8. Adjourn | 12:00 |

Conference Line Information

Please email Brenda at brenda.goeden@bcdcc.ca.gov by 5:00 pm, Monday, February 23, 2015 if you need a conference line to participate.

NOTE: Information in columns J through U may be outdated - A spreadsheet developed at the Short Te

Project Assigned To	PROJECT NAME	CITY/LOCAL E	BCDC PERMIT #	LATITUDE	LONGITUDE	CONTACT PERSON	PHONE	OF EPISODE
	Aeolian Yacht Club	Alameda	M85-63	37.750°N	122.232°W	Richard Purdy	510/523-2586	
	Alameda County flood control	Various around county				Don La Belle	510/670-5444	
	Alameda Point Navigational Channel	Alameda	M05-07			Jacklyn Gnusti; Rick Rhoads		
	Alviso Marina Boat Ramp (Santa Clara Parks Dept)	Alviso						
	Amports (aka Port of Benicia, Benicia Port Terminal, Benicia Industries)	Benicia	M75-95	38.042°N	122.135°W	Jim Triplett/Nancy Pagan	707/745-2394	
	Antioch Marina Boat Ramp	Antioch						
	Arques Shipyard & Marina	Sausalito 94965				Lemon-Shorter		
	Ballena Bay Townhouses	Alameda		37.767°N	122.284°W	John Marty; Cooper	(415) 892-2778	
	Ballena Isle Marina	Alameda		37.767°N	122.284°W	Ross Hollinger	510/523-5528	
	BART Seismic Retrofit Project	Oakland						
	Bay Bridge access channel	East side of Bay Bridge		37.825°N	122.321°W	Julie Kistle	510/232-6319	
	Bay Bridge Cofferdam Excavation	New east side Bay Bridge west bound lanes		37.825°N	122.321°W	Julie Kistle	510/232-6321	
	Bay Bridge Glory Hole Dredging	New east side Bay Bridge west bound lanes		37.825°N	122.321°W	Julie Kistle	510/232-6320	
	Bel Marin Keys (North Lagoon)	Novato	M97-3					
	Benicia Marina	Benicia	5-77	38.045°N	122.154°W	Otto Giuliani	707/746-4210	
	Berkeley Marina	Berkeley	5-79	37.866°N	122.314°W	Dana Lucas (Marine Center)	510/843-8195	
	Black Point Launch Ramp	Novato						
	BP Richmond Terminal	Richmond	M04-20					
	Brickyard Cove	Pt. Richmond	M86-36					
	California Maritime Academy	Vallejo						
	Caltrans - Yerba Buena Island	Oakland						
	Cargill - Napa River	Napa		38.275°N	122.852°W			

	Castrol Richmond Terminal	Richmond				William Walter	510/238-6312 ext. 102	
	Chevron Long Wharf	Richmond	M84-43	37.925°N	122.408°W	Don Kinkela	510/242-3308	
	Clipper Yacht Harbor	Sausalito	M94-6	37.871°N	122.496°W	Ken Pederson	415/332-3500	
	ConocoPhillips, Richmond	Richmond						
	ConocoPhillips, Rodeo	Rodeo	M74-69	38.053°N	122.260°W	Dennis Quilici	510/245-4403	
	Corona Del Mar Association	Alameda						
	Coyote Point Marina	San Mateo				Ron Weaver	650-363-1881	
	Emery Cove Marina	Emeryville	NOI 08-3	37.839°N	122.310°W	Diane Isley	510/428-0505	
	Emeryville Access Channel	Emeryville	M81-41			John Marty; Cooper	(415) 892-2778	
	Glen Cove Marina (aka Western Waterways Inc.)	Vallejo	24-76					
	Greenbrae Marina	Larkspur				John Marty; Cooper	(415) 892-2778	
	Hanson Aggregates (at Tidewater Ave)	Oakland	M01-42					
	IMTT Richmond Terminal	Richmond				Cheney	510/412-5700	
	Kahn Dock	Marin	M07-16					
	Larkspur Ferry Berths - maint. dredging	Larkspur		37.942°N	122.504°W	Lynford Edwards	415/923-2349	
	Larkspur Ferry Channel	Larkspur		37.942°N	122.504°W	Lynford Edwards	415/923-2349	
	Levin Richmond Berths	Richmond						
	Loch Lomond Marina	San Rafael		37.871°N	122.496°W	Pat Lopez	415/454-7228	
	Lowrie Yacht Harbor	San Rafael				Bud Lowrie	415/454-7595	
	Mare Island Berth 22/23 (Weston)	Mare Island		38.083°N	122.250°W	Terry Iwagoshi	707/562-3303	
	Marin Rowing Club	Larkspur						
	Marin Yacht Club	San Rafael	M92-45			Dave Dorward	415/453-9366	
	Marina Plaza Harbor	Sausalito				Peter Moorehead	415-332-4723	
	Marina Vista Canal	San Rafael						
	Martinez Marina	Martinez				Kronsnabl, Kinnetic labs	(831) 457-3950	
	Martinez Marina	Martinez	M81-93					
	Mirant Contra Costa Power Plant							
	Mirant Pittsburg Power Plant							
	Napa River Channel	Napa						
	Napa Valley Marina	Napa	20-78	2007		BC	2005	
	National Gypsum Terminal					Cheney		

	Oakland Yacht Club	Oakland						
	Oyster Cove Marina	South San Francisco	1-77					
	Pacific Refining Company	Hercules	M89-53					
	Paradise Cay Marina/ Yacht Club (aka Pullman Building Company)	Tiburon	M96-9 (formerly M02-15)			Harry Blake	415/435-6285	
	Petaluma Marina	Petaluma						
	Petaluma River (Corps O&M)	Petaluma River	CN9-06	38.113°N	122.502°W	Corps		
	Pinole Shoal (Corps O&M)	Pinole	CN9-06	38.041°N	122.353°W			
	Port of Oakland - BART Work	Oakland						
	Port of Oakland Deepening (new work)	Port of Oakland	CN 14-00	37.803°N	122.329°W	Corps		
	Port of Oakland Inner Harbor (Corps O&M)	Port of Oakland	CN9-06	37.809°N	122.337°W	Corps		
	Maintenance - Berths 20, 21, 23, 30, 32, 33, 37, 55-59,	Port of Oakland	M03-39	37.793°N	122.288°W	Len Cardoza	510/627-1307	
	Port of Oakland Outer Harbor (Corps O&M)	Port of Oakland	CN9-06	37.809°N	122.337°W	Corps		
	Port of Redwood City Berths	Redwood City	M93-77	37.516°N	122.205°W	Don Snaman	650/306-4150	
	Port of Richmond Berths	Richmond	M96-17			Jim Matzorkis	510/215-4600	
	Port of San Francisco, Berths 80/92/94/96 & Islais Creek	San Francisco		37.747°N	122.375°W	Jay Ach	415/274-0563	
	Port of SF (berth 35)	San Francisco		37.809°N	122.405°W	Jay Ach	415/274-0563	
	Port of SF (other berths)	San Francisco		37.782°N	122.382°W	Jay Ach	415/274-0564	
	Port of Stockton	Stockton		37.951°N	121.327°W	Gordon Palmer	209/946-0246	
	Port Sonoma	Petaluma						
	Pt. San Pablo Yacht Harbor	Pt. Richmond	M87-60	37.964°N	122.417°W	Jim Hearn Eric Johnson	510/233-3224	
	Redwood City Harbor (Corps)	Redwood City	CN9-06	37.516°N	122.205°W	Corps		
	Redwood City Marina	Redwood City		37.516°N	122.205°W	Enterprise) Rich Ferrari	650/363-1390	
	Richardson Bay Marina (formerly Kappas Marina)	Sausalito		37.876°N	122.503°W	John Marty; Cooper	(415) 892-2778	
	Richmond City Marina	Richmond		37.902°N	122.340°W	Sharon Woods	510/263-1013	
	Richmond Inner Harbor (Corps)	Richmond	CN9-06	37.902°N	122.340°W	Corps		
	Richmond Marina Bay	Richmond		37.902°N	122.340°W			
	Richmond Outer Harbor (Corps)	Richmond	CN9-06	37.923°N	122.421°W	Corps		

	Richmond Yacht Club	Richmond	M82-57					
	San Francisco Dry Dock/BAE Systems	San Francisco	M93-13			Sean Riley		
	San Francisco Marina, City of SF	San Francisco						
	San Francisco Ship Channel (Corps)	San Francisco				Corps		
	San Leandro Bay	San Leandro		37.751°N	122.223°W			
	San Leandro Small boat lagoon	San Leandro		37.693°N	122.187°W			
	City of San Rafael)(SORRENTO CUT?)	San Rafael		37.966°N	122.506°W	John Marty; Cooper	(415) 892-2778	
	San Rafael Channel (Corps)	San Rafael		37.968°N	122.500°W	Corps		
	San Rafael Rock Quarry	San Rafael						
	San Rafael Yacht Harbor	San Rafael	M81-102	37.967°N	122.513°W	Matthew Butler	415/456-1600	
	Sausalito Debris Boat Dock (Corps)							
	Sausalito Yacht Harbor	Sausalito		37.859°N	122.479°W	Herb Madden, Jr.	415/332-5000	
	Schnitzer Steel, Oakland	Oakland		37.794°N	122.282°W	Gary Schnitzer	510/444.3919	
	Schoonmaker Point Marina	Sausalito		37.863°N	122.490°W	Michael Rainey		
	Sea Scouts	Larkspur				John Marty; Cooper	(415) 892-2778	
	Shore Terminals, Martinez	Martinez				Mike Burgett	925/228-3227	
	Shore Terminals, Richmond	Richmond				Rich Brandes		
	South Beach Yacht Harbor	San Francisco				Jim Nybakken	415/274-0562	
	Strawberry Channel/ Cove Apts	Mill Valley	M04-28			Curt Bolton		
	Suisun Channel/NY Slough Channel (Corps)	Suisun Bay		38.033°N	121.868°W	Corps		
	Suisun City Channel	Suisun	M85-87					
	Sunnyvale, City of	Sunnyvale						
	Tidewater Aquatic Center	Oakland						
	U.S. Coast Guard Station Alameda	Alameda						
	U.S. Coast Guard Station Vallejo	Vallejo						
	U.S.S. Posco Industries	Antioch						
	Valero, Benicia	Benicia	M81-79	38.027°N	122.077°W	Don Cuffel	707/745-7545	
	Vallejo Ferry Dock	Vallejo						
	Vallejo Marina North	Vallejo		38.104°N	122.266°W	Jim Haussener	707/996-1405	

	Vallejo Marina South	Vallejo		38.104°N	122.266°W	Jim Haussener	707/996- 1405	
	Vallejo Yacht Club	Vallejo	M99-26	38.104°N	122.266°W	Jim McCarthy	707/643- 1254	
	Venoco - Ryer Island	Ryer Island				John Marty; Cooper	(415) 892- 2778	

the Short Term Windows Workgroup meeting has more updated info on status of permits and work window issue

VOLUME (Range in 1000 CYS)	PERMITS OBTAIN ED	LAST DREDGED	FREQUEN CY (if known)	CONTRA C-TOR (if known)	EQUIP- MENT	DISPOSAL SITE	DMMO STATUS	START DATE (Estimated)
			annual					
				WD	C	SF-11		
			8 years	WD	C	SF-11		
			8 years					
			once	M				
			once	M	C	SF-11		
			once	M	C	SF-11		
					H	Hamilton, U		
			5 years			SF-9		
			Annual	WD	C	SF-10		

			annual					
			5 years	WD	C	SF-11		
			bi-annual	M	Hopper	SF-8 or SF-DODS		
			7 years	WD	C	SF-11		
			8 years	D	C	SF-11		
			5 years					
			5-7 years	WD	C	SF-11		
			8 years		C	SF-10 or SF-11		
			1999	WD	C	SF-11		
						SF-11		
			4-5 years	WD	C	SF-10 or SF-11		
			once	M	C	SF-9		
			4-5 years	WD	C	SF-10		
			7 years	SR		SF-11		
			2 years	WD	C	SF-10 or SF-11		
						upland (on site disposal ponds)		

			20 years			SF-11		
			4-5 Years	SR	C or H	SF-11		
			6 years	Corps		U		
				Corps				
			new work	D	C	MH, U		
			annual	Corps		SF-DODS		
			annual	D	C	SF-11, U		
			annual	Corps		SF-DODS		
			bi-annual	D	C	SF-11		
			annual	D	C	SF-11		
			annual	D	C	SF-11		
			annual	RI				
			annual	Corps				
			annual	Corps		SF-DODS		
			annual	Corps	r Dredg e			

						SF-11		
				Corps	r Dredg e	SF-8		
			5 years	WD	C	SF-10 or SF-11		
			5 years	Corps				
			10 years	WD	C	SF-11		
			5 years	WD	C	SF-10		
				M	C/Hop per	SF-9		
						SF-11		
			Unknown	WD	C/Hop per	SF-11		
			annual	Corps	Dredg e			
			Quaterly (4 X per year)	D		SF-9		
			5 years	WD	C	SF-9		

			5 years	Unknown	C	SF-9		
			5 years					

DATE (Estimated)	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS
			Club did not return phone calls
	8/1 to 11/30		
		NOAA/steelhead/salm on	Done 2002
	6/1 to 10/31	DFG herring NOAA/salmon	
	8/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Consultation completed
	3/1 to 11/1	DFG/herring NOAA/steelhead/salm on	
	6/1 to 12/1	DFG/herring NOAA/steelhead/salm on	Done 2002, maintenance maybe necessary
	6/1 to 12/1	DFG/herring NOAA/steelhead/salm on	Schedule depends on east bound lanes const.
	6/1 to 12/1	DFG/herring NOAA/steelhead/salm on	Schedule depends on east bound lanes const.
	8/1 - 10/15	NOAA/steelhead USFWS/clapper rail/moose	Complete
	6/1 to 12/1	NOAA/steelhead/salm on	
	8/1 to 11/30	NOAA/steelhead/salm on	
	8/1 to 11/30	F&WS Splittail NOAA/steelhead/salm on	

	6/1 to 12/1	NOAA/steelhead/salm on	Done 2002
	6/1 to 11/30	NOAA/salmon or smelt	
	6/1 to 11/30	NOAA/steelhead/salm on	
	8/1 to 11/30	FWS/delta smelt	Alt. Analysis
	6/1 to 11/30		Completed 2003
	6/1 to 11/30	NOAA/steelhead/salm on	
	6/1 to 11/30	NOAA/steelhead/salm on	Done 2002
	3/1 to 11/30	DFG/herring	
	3/1 to 11/30	DFG/herring, NOAA/steelhead/salm on	
	6/1-10/31	NOAA/Steelhead/Salm on/Coho DFG/Herring	window??? ; DOP - Lisa; Need Corps
		NOAA/coho	
	6/1 to 11/1	NOAA/steelhead/salm on/coho	
	1/1 to 12/31	NOAA/steelhead/salm on	Work Completed
		NOAA/steelhead/salm on	
	3/1 to 11/30	DFG/herring	
	6/1 to 11/30	NOAA/steelhead/salm on/coho	
	6/1 to 12/31	NOAA/steelhead/salm on	
	8/1 to 11/30	NOAA/steelhead/salm on	

	3/1 to 11/30	DFG/herring, NOAA/steelhead/salm on	
	6/1 to 11/30	DFG/herring, NOAA/steelhead/salm on	
	10/15 (consult)	NOAA/steelhead/salm on	Work Complete for 2003
		NOAA/steelhead/salm on	Work Complete for 2003
	N/A	N/A	Consultation complete
	All Year	DFG/herring NOAA/steelhead/salm on	Emergency, Dredging in May O&M started in August
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Consultation
	6/1 to 11/30	NOAA/steelhead/salm on	
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Completed end of May
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	
		NOAA/salmon?	
		NOAA/steelhead/salm on	
	9/1 to 6/1	NOAA/steelhead/salm on	Urgent Work Completed, Consultation
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Consultation, Work in Progress
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	

			Completed for 2003
	6/1 to 11/30	NOAA/steelhead/salm on	
	6/1 to 11/30	NOAA/steelhead/salm on	Completed for 2003
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on/coho	
	6/1 to 10/31	NOAA/salmon	
		Tier 1 exclusion requested	
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	
	6/1 to 11/30	NOAA/steelhead/salm on	consult req'd
	6/1 to 11/30	NOAA/steelhead/salm on	knockdowns are anticipated in 2003
	8/1 to 10/14	NOAA/steelhead/salm on	insufficient time to complete task

	8/1 to 10/14	NOAA/steelhead/salm on	
	6/1/ to 12/1	NOAA/steelhead/salm on	

PROJECT NAME	CITY/ LOCALE	YEAR	EPISODE 2008 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS
Alameda Point Navigational Channel	Alameda	2008	424	RBC	2005	2-3 years	none yet	C	SF-11	SAR Appr.	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway, likely to complete within the window
Imports (aka Port of Benicia, Benicia Port Terminal, Benicia Industries)	Benicia	2008	17-19	RBC	2003				SF-9	Tier I Denied; SAP Appr.; Test Results and retesting done 1/2 material SUAD for in-Bay, 1/2 NUAD, may leave or knockdown			8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Complete
Antioch Marina Boat Ramp	Antioch	2008	2						upland (Chippis Island)	Not yet gone to DMMO	fall 2008		Need to consult for smelt year round	NOAA/steelhead/salmon FWS/delta smelt (less than 10 ft depth)	Not in LTMS agencies' jurisdiction ** Jim to check status
BAE Systems/SF Drydock - DD2	San Francisco	2008	140-170	RBC	(DD1 dredged in 2007)	2-3 years		C	SF-11	Tier I Appr.; Testing done; SUAD for upper layers; bottom layer NUAD (High PAHs)	June		3/1 to 11/30	DFG/herring	Complete
Benicia Marina	Benicia	2008	10	RBC	2007	Annual	SRC	C	SF-9	Testing Complete	October	November	Need to consult for smelt year round	NOAA/steelhead/salmon FWS/Delta smelt (depth in marina < 10 ft)	Consultation complete, Underway
Chevron Long Wharf - maintenance dredging	Richmond	2008	80	RBC	2007	Annual	D	C	SF-11	Testing Complete			6/1 to 11/30	NOAA/Steelhead/salmon DFG/herring	DOP Approved. Dutra - 7,000 cy per day? Underway
Conoco Phillips	Rodeo	2008	40	RBC	2007	Annual		C	S-8 and SF-9	Tier I Appr.	August	September	6/1 to 11/30	NOAA/Steelhead/salmon	Complete
Corps - Main Ship Channel	San Francisco	2008	< 500	RB	2007	Annual		H	SF-8	Tier I Req.	1-Jun		year round		Complete
Corps - Sausalito Debris Boat Dock - Letter from Lenon Way	Sausalito	2008	18-20	RB	1978	30 years	Britian Industry	C	SF-11	Testing Complete			6/1 to 11/30	NOAA/steelhead/salmon n DFG herring	Underway, some contaminated sediment to Berth 10
Corps O & M - Oakland Federal Channel (Inner)	Oakland	2008	200	RB	2007	Annual	DMJV	C	Hamilton, SF-DODS	Tier I Appr. For SF-DODS; SAP for Hamilton Appr.	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Ongoing
Corps O & M - Oakland Federal Channel (Outer)	Oakland	2008	150	RB	2007	Annual	DMJV	C	Hamilton, SF-DODS	Tier I Appr. For SF-DODS; SAP for Hamilton Appr.	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Ongoing

Corps O & M - Redwood City Harbor	Redwood City	2008	350	RB	2005	Annual		H	Bair Island	Testing Complete	1-Jun		6/1 to 12/31	Consultation complete Steelhead	FWS requested until January 31st for levee breach. Corps is requestig two extra weeks of dredging from NOAA. NOAA is drafting a letter.
Corps O & M - Richmond Harbor Channel (Outer)	Richmond	2008	120	RB	2007	Annual		Hopper	SF-11,	SAP Appr; testing done; All material SUAD	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
Corps O & M - Pinole Shoal	Pinole	2008	70	RB	2007	Annual		C	Hamilton	<u>Testing done</u>	1-Nov		6/1 to 11/30	NOAA/steelhead/salmon	Pre-dredge surveys done. Not under contract yet. Disposal at Hamilton; DV 24 Clamshell and doing Suisun and Pinole simulataneously. Equipment is here and pre-dredge survey is underway. Dredge starting on weekend.
Corps O & M - Richmond Harbor Channel (Inner)	Richmond	2008	50-60	RB	2007	Annual		Hopper	SF-11	SAP Appr.; Test Results done; Material SUAD except portion by Santa Fe Channel *	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete - Santa Fe Channel not dredged this year
Corps O & M - Suisun Channel (1st) and New York Slough	Suisun	2008	60	RB	2007	Annual	Dutra	C	SF-16,	Tier I Appr.	1-Aug		8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Dredge coming from Alaska and other location... second week in November Columbia arrives on Nov 24th...4 days at New York Slough, then to Redwood City
Emeryville City Marina Access Channel	Emeryville	2008	44-45	RBC	2003	5 years	Manson	C	SF-11	Testing Complete	22-Oct		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Trying to finish before window.DFG has provided consultation, dredging can continue through Dec/Jan
Emery Cove Condomium Association (last)	Emeryville	2008	60	RBC	2002	5 years	?	C	SF-11	Testing Complete			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	DFG has provided consultation, dredging can continue through Dec/Jan
Emeryville City Marina (Marinas International)	Emeryville	2008	50	RBC	2002	5 years	SR	E	SF-11	Testing Complete	1-Nov		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DEG/least tern	Underway
Lowrie Yacht Club	San Rafael Canal	2008	14	B	2004	3-4 years	WD	C	SF-11	Need Request	December		Year Round	NOAA steelhead/salmon	Year 'round consultation with SF-11 disposal in winter, SF-10 otherwise
Marin Rowing Club	Larkspur	2008	2.9	RBC	2006	3-4 years	SRC	C	SF-10	Tier 1 Appr.			6/1 to 11/30	FWS & DFG/least tern	Complete
Martinez Marina	Martinez	2008	35	RBC	2006	3-4 years		H	upland (onsite disposal ponds)	SAP Appr.; testing done; Area A SUAD and suitable for upland; Upper corner of Area C OK for upland; Areas with high Hg not being dredged	summer/ fall		8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	DOP Approved; consultation - requested from Corps - need to send packet to resource agencies Dredging underway
Paradise Cay Yacht Club	Tiburon	2008	5	RBC	2007	3-Feb	SR	E	SF-11	Tier I Appr.			6/1 to 10/31	DFG/herring, NOAA/steelhead/salmon	Underway, may request consultation
Port of Oakland - BART Work	Oakland	2008	0 *	RB	Ongoing	New Work	D	C	SF-DODS	Tier I Granted	June/ July		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Complete
Port of Oakland - Berths 30, 32, 33, 35 grading/knockdowns	Oakland	2008	10	RBC			D	C	in-berth		15-Mar		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DEG/least tern	Knockdowns completed for Berths 30, 32, and 33.

Port of Oakland - Deepening (new work - Corps) Phase 3E	Oakland	2008	2,300	RB	Ongoing	New Work	MDJV	C	Hamilton	Testing Complete			N/A	N/A	Ongoing - scheduled completion date is June 2009. Most of outer harbor is completed.
Port of Oakland Maintenance - Berths 22, 24, 25, 26, 35, 37, 60-63	Port of Oakland	2008	60(50)	RBC	2007	Annual	D	C	SF-11	Need volume calcs, SAPs	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway
Port of San Francisco, Berth 35 E & W	San Francisco	2008	45	RB	2007	Annual	D	C	SF-DODS	Testing Complete	1-Oct		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	delayed start too November 17 due to equipent shortage/delay
Port of San Francisco, Berth 27	San Francisco	2008	60	RB	2006	1-2 years	D	C	SF-11	Testing Complete	1-Oct		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
Port of San Francisco, Berths 80/92/94/96 & Islais Creek	San Francisco	2008	120	B	2005	2-3 years	D	C	SF-11	SAP Appr.; testing done; Portion of Islais Crk is NUAD; rest of material SUAD; Tier I Appr. for Berth 80D	1-Jun		6/1 to 11/30	NOAA/steelhead/salmon	Complete
Port Sonoma	Petaluma	2008	80-100	BC	2007	Annual	CD	H	Onsite Ponds/Carneros	Testing complete	December		12/1 to 1/30	NOAA/steelhead/salmon	Consultation completed
Richmond (Harbor) Yacht Club	Richmond	2008	20	RB	2004		SR	C	SF-11	Tier I Appr.			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
San Francisco Marina, City of SF	San Francisco	2008	50 mud; 100 sand	RB	2005		Jerico	C/H	SF-11/ upland	Testing Complete	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Request 11/1 start
San Rafael Rock Quarry	San Rafael	2008	27.3	RB	2005	4-5 years	D		SF-10, Hamilton	No Tier I; SAP Appr.; Testing done; Material SUAD			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Application in to all agencies. IAA is pending. Corps PN has gone out.
San Rafael Yacht Harbor	San Rafael	2008	10-14 (some done in 2007)	RBC	2007		doing work themselves		SF-10, SF-11	Testing Complete for main basin; SAP Appr. to test additional problem areas	Begun in fall 2007		(disposal at SF-10 6/1 to 11/30; dispose at SF-11 12/1	NOAA/steelhead/salmon	Contaminant issues in some areas of marina so need upland site. New consultation requested to go year round to SF-10
Suisun City Channel & Marina - FWS needed	Suisun	2008	100-120	R	2003	5 years		C	Pierce Island	SAP Appr., Testing Complete.				NOAA Steelhead/Salmon FWS Delta smelt	Has consultation to dredge until December 31st from FWS and NOAA until Jan?.
U.S. Coast Guard Station Alameda	Alameda	2008	35	RBC	1986	20 years	D, ERRG	C	Berth 10, upland	Testing Complete; Material NUAD (contam issues, high toxicity)			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Complete
U.S. Coast Guard Station Vallejo	Vallejo	2008	12	R	2003	2-3 years		C	SF-9	Testing Complete			8/1 to 10/15	FWS/Delta smelt NOAA/steelhead/salmon DFG/dungeness crab	Complete
U.S.S. Posco Industries	Antioch	2008	2 (cleanup)	RC	2007	4-5 years	WD	C	Winter Island	Testing Complete			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern (without Dungeness	Complete

Project Assigned To	PROJECT	CITY/LOCALE	BCDC Permit #	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT
BG	Aeolian Yacht Club	Alameda	M85-63	2007	18	RB	93/94	6-8 years	SR	C
BG	Bel Marin Keys (North Lagoon)	Novato	M97-3	2007	170	RC		unk	Camizon	H
JH	Benicia Marina	Benicia	5-77	2007	17	RBC	2005	Annual		
MD	Chevron Richmond Long Wharf	Richmond	M84-43	2007	160	RBC	2006	annual	Dutra	C/H
MD	Clipper Yacht Harbor Basin 2 Deepening	Sausalito	M94-6	2007	18	RBC	n/a	one time project	WD	C
	Conoco Phillips, Rodeo	Rodeo	M74-69	2007						
JH	Kahn Dock	Marin	M07-16	2007	7.3	RB	1999		WD	C
BG	Marin Rowing Association	Greenbrae	M87-32 ??	2007	1	RBC	2006	biennial	SR	
MD	Marin Yacht Club	San Rafael	M92-45	2007		RBC	2004	3-4	SR	C
BG	Marina Vista	San Rafael		2007	6	RBC	2005		SR	C
MD	Napa Valley Marina	Napa	20-78	2007		BC	2005		own	H
JH	Oyster Point Marina	South San Francisco	1-77	2007	100				SR	
	Pacific Refining Company	Hercules	M89-53	2007	0.0375					

	Paradise Cay Marina/ Yacht Club (aka Pullman Building Company)	Tiburon	M96-9 (formerly M02-15)	2007			2005 or 2006?		SR	
BG	Pinole Shoal (Corps O&M)	Pinole	CN11-03	2007	175	RB	2006	Annual	Essayons	H
MD	Point San Pablo Yacht Harbor	Pt. Richmond	M87-60	2007	40	RB				
JH	Port of San Francisco Pier 39	Port of SF	M02-713	5/29/1905	1/8/1900	RBC	1/20/1905		SR	C
BG	Port of Oakland - BART Work	Oakland		2007	88	RB	Ongoing	New Work		C
BG	Port of Oakland Deepening (new work - Corps) Phase 3E	Port of Oakland	2-04	2007	1.5 Hamilton; 390-SF DONS	RBC	Ongoing	new work	Manson/Dutra JV	C
BG	Port of Oakland Inner/ (Corps O&M)	Port of Oakland outer harbor work	CN11-03	2007	200	RB	2006	annual		C
MD	Port of Oakland Maintenance - Berths 20, 21, 23, 30, 32, 33, 37, 55-59, 60-63,	Port of Oakland	M03-39	2007	115	RBC	2006	annual	Vortex	C
	Port of Richmond	Richmond	M96-17	2007					D	
BG	Port of SF (berth 35 E & W)	Port of SF		2007	60	RBC	2006	annual	D	C
BG	Richmond Inner Harbor Channel (Corps)	Richmond	CN11-03	2007	350	RBC	2006	annual	D	C
BG	Richmond Outer Harbor (Corps)	Richmond	CN11-03	2007	318	RBC	2006	annual	Essayons	H
MD	San Francisco Dry Dock/BAE Systems (Drydock I)	San Francisco	M93-13	2007	42	RBC	2004	2-3 years		C
BG	San Francisco Ship Channel (San Rafael)	San Francisco		2007	575	RBC	2006	annual	Essayons	H
JH	(Sorrento Cut) - (contact is Western Dock, John Morley)	San Rafael		2007	0.6	RBC	2006	5 years	WD	C

MD	San Rafael Yacht Club/Harbor	San Rafael	M81-102	2007	14	RB			own equipment	C
MD	Strawberry Channel/Cove Apts	Mill Valley	M04-28	2007	7	RBC	2006	10 years	SRC	C/H
BG	Suisun Bay/NYSlough Channel (Corps)	Suisun Bay		2007	80	RB	2006	Annual		C
BG	Valero, Benicia	Benicia	M81-79	2007	80 +1 KD	RBC	2005	Quarterly (4 X per year)	D	C

DISPOSAL SITE	DMMO	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS
SF-11	Testing Complete	June 1, 2007		8/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/least tern	Some cord grass in basin; Also a hot spot issue, 1000 cy needs an upland disposal site for contaminated material (to go to Winter Island?) - material to be loaded on a special flat deck barge with sides, rehandled, and go to landfill, PoSC dewatering and separate on parking lot every ready - Water Board OK with this? **, upland - dredging underway for clean sediment
Hamilton, U	Testing Complete			8/1 - 10/15	NOAA/steelhead USFWS/clapper rail/mouse	Complete
SF-9	Tier I Granted: Additional Tier 1 is needed			6/1 to 11/30 (will go outside window)	NOAA/steelhead/salmon/delta smelt	Need to consult for smelt; yes
SF-11	Need to Provide Results			6/1 to 11/30	NOAA/steelhead/salmon/herring	contaminants on site, Significant shoals in approach, seeking amendment; DOP has been submitted to Corps; Want to proceed with dredging berths
SF-11				6/1 to 10/31	NOAA/steelhead/salmon DFG/herring	Underway; should finish on 10/23
				6/1-11/30	NOAA/Steelhead/salmon USFWS/Delta Smelt	
SF-11	Testing Complete			6/1-10/31	NOAA/Steelhead/Salmon/Coho DFG/Herring	Going to make it inside window??? ; DOP - Lisa; Need Corps permit - 14 days
SF-11	Tier I for Ep1 September 07	June		6/1 to 10/31	NOAA/steelhead/Chinook /Coho DFG herring	Complete
SF-11	Tier 1			6/1 - 11/30	NOAA/steelhead/Chinook/herring	Complete
SF-10	Tier 1 Granted			6/1 - 11/30	Steelhead/Salmon	Complete
				8/1 - 12/31	Steelhead	has consulted, dredging in December OK; complete project under NWP
SF-11		June 1		6/1 - 11/30		Need to consult, public notice is out; EFH; consultation on deepening →potential formal → green sturgeon
sidecast		9/11/2007	13/2007			

SF-10 or SF-11		11/9/2007	1/9/2007			
Hamilton, SF-10		June		6/1-11/30	NOAA/steelhead/salmon	Essayons
SF-10	Tier I June 05			6/1 to 11/30	NOAA/steelhead/salmon	DOP issued Aug 2005; No equipment, informal consultation required due to lack of equipment - Rob -> NOAA -> David; Contractors can give less money during restricted period
U	SAP Approved Test Results Pending			6/1 - 11/30	Herring/Salmon/Steelhead	DOP approved, upland site - winter Island dikes need to be prepared; **Need to contact Beth regarding sediment quality
SF-DODS	Tier I Granted					
Hamilton, Montezuma, SF-DODS	Testing Complete			N/A	N/A	Ongoing; Levine owes P of O money - will accept sand for Least Tern islands as exchange; pipe is critical; Post Dredge and Hamilton in November
DODS Montezuma	Req Tier I - SF-DODS			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	Consultation Needed; Have pre-dredge survey; waiting for Richmond for Ocean going scows; may need to dredge outside window and consult for herring and steelhead (willing to have herring monitor); also, may need to reprogram money unless have a Continuing Resolution on Nov 16
SF-11	Some Tier 1 Testing Underway	August 1, 2007		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	Underway
SF-DODS		10/14/2007	1/17/20	6/1 to 11/30		
SF-DODS	Testing Complete			3/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
SF-DODS	Tier I from EPA	April		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway
SF-10/SF-11	Tier I pending AA	June 1, 2006		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	complete
SF-11	Testing Complete			6/1 to 11/30		Dry Dock 1 Complete, Dry Dock 2 -2008
SF-8, Ocean Beach	Tier I Jan 2006			Weather Imposed		Complete
SF-10 or SF-11	SAR Aug 03	Unknown		year-round	NOAA/steelhead/salmon	Underwayby last week of October

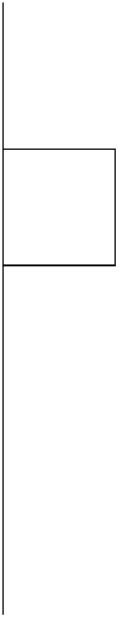
SF-11	Testing Complete			6/1 - 11/30		Mercury issues; hotspot - underway for clean material, removing 100 yds at a time - may need to consult Corps; ** May to check with Matt Butler on anticipated volume and consultation
SF-11	Tier I Granted	June		6/1- 11/30	NOAA/steelhead/salmon DFG/herring USFWS/clapper rail	Complete
Hamilton, SF-16	Tier I Granted	August		8/1 to 11/30	NOAA/steelhead/salmon USFWS/delta smelt	Underway
SF-9		Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30	NOAA/steelhead/salmon	

HAVE POST DREDGE SURVEY ?	POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?
yes	12/7/2007	BG	ok	
No				Yes
Yes	10/29/2007	M. Delaney	* Authorized to remove 12,385 from Basin 2 for 1 time deepening as well as 200,000 cy of maint dredging from Berths 1-4. Actually removed 13,256 from Basin 2. * Authorized depth was minus 11 plus 1 foot overdredge; barely exceeded minus 12 in a couple spots by 0.2-.0.3 feet	NA
Yes	7/24/2007	J. Hamburger	* Authorized to dredge up to 90,000 cy per year for five years, for a total of 450,000 cy, to be completed by April 16, 2009; actually dredged 27,655 cy in Areas 1, 2 and 3 * Authorized to dredge to -40' MLLW plus 2 in Area 1, -35' MLLW plus 2 in Areas 2 and 3, and -22' MLLW plus 2 in Areas 4 and 5; all PD depths at or below design depth	NA
yes		BG		Yes
yes		BG		
Yes		M. Delaney	* Authorized to remove 42,000 cy over three episodes; have removed all material authorized on this amendment * Authorized depth of minus 10 feet plus 1 ft overdredge; did not exceed 10 feet at all	NA
Yes		J. Hamburger	Report described depths and volumes dredged to find buried pipeline as required by SLC. Volume was less than permitted volume.	NA

Yes	11/17/2007	J. Hamburger	*Authorized to maintenance dredge 84,000 cy over five years (to be completed by Oct. 17, 2007) - removed 30,916 cy in 2007 episode * Still waiting for previous post-dredge surveys * Authorized to dredge to -9' MLLW plus 1 - actually dredged to -5.8 to -9.6	
No				Yes
No				Yes
Yes	10/22/2007	J. Hamburger	* Authorized to maintenance dredge up to 44,000 cy over five years (to be completed by August 23, 2012) * Actually dredged 24,600 cy in 2007 episode * Authorized to dredge to -38' MLLW plus one * Actually dredged to -37' to -40' MLLW	NA
Yes	6/6/2007	M. Delaney	* Authorized to remove 127,000cy from DD1 over five years; removed approx. 36,631 cy in 2007 episode. * Authorized depth was minus 45 feet plus 2 feet overdepth; did not exceed minus 45 anywhere.	NA

No			*Had to stop due to windows closing - will resume episode in 2008??	
No				Yes
Yes	7/15/2007; 11/2/2007	J. Hamburger; M. Delaney	Event 1: 15,850 cy Event 2: 9,127 cy Event 3: 7,562 cy Event 4 (July): 9,500 cy Event 5 (Sept): 6,849 cy Annual Quantity Dredged to Date: 48,888 cy Annual Authorized Quantity: 80,000 cy	NA





PROJECT	CITY/LOCALITY	BCD C Permit #	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE
Alameda Point Navigational Channel	Alameda		2006	20	RBC	2005		Manson		SF-11
Benicia Industries aka Ampports	Benicia		2006	18-20	BC		annual			SF-9
Benicia Marina	Benicia	5-77	2006	15	RBC	2005	Annual			SF-9
Berkeley Marina (A-D)	Berkeley		2006	8						SF-11
Berkeley Marina (H-I)	Berkeley		2006	7	RBC					SF-11,U
Black Point Launch Ramp	Novato		2006	0.23		2004	Annual	WD	C	SF-10
Chevron Richmond Long Wharf	Richmond	M84-43	2006	150	RBC	2005	annual	D	C/H	SF-11
Harbor Maintenance	Sausalito	M94-6	2006	13	RBC	2004	5 years	WDE	C	SF-11
ConocoPhillips, Rodeo	Rodeo	M74-69	2006	30	RBC	2005	biennial		C/H	SF-9
Corinthian Yacht Club	Tiburon	M81-67	2006	12	RBC	2005	3 years	WDE	C	SF-11
Coyote Point Marina	San Mateo	M93-14	2006	90	RBC	2003	biennial		C/H	SF-11
Larkspur Ferry - Channel	Larkspur		2006	600	C	2004	annual	D	C	SF-11
Levin Richmond Terminal	Richmond		2006	31	none					Montezuma
Mare Island Army Reserve (Berth 22/23)	Napa	CN4-02	2006	30	RBC	2003			C	SF-9
Marin Rowing Association	Greenbrae		2006	2.5	RBC	1998/99	biennial	SR	E	SF-11
Napa Valley Marina	Napa	20-78	2006	12	RBC	2005		own	H	on-site
Paradise Cay Homeowners Club (aka Pullman Building Company)	Tiburon	M94-68	2006	35	RB				C	SF-11
	Tiburon	9 (formerly M02)	2006	70	RBC	2005	4-5 Years	SR	C/H	SF-10 or SF-11

Pinole Shoal (Corps O&M)	Pinole	11-03	2006	30	RBC	2005	Annual	Corps	H	
Point San Pablo Yacht Harbor	Pt. Richmond	M87-60	2006	40	RB					SF-10
Berths (new work - Montezuma Wetlands Project, Corps) Phase 3E	Port of Oakland		2006	310	RBC		new work	D	C	A, SFDO DS, Hamil
Port of Oakland Deepening (new work - Middle Harbor, Corps) Phase 3D	Port of Oakland	2-04	2006	990-1 mil	RBC		new work	Manson	C	Montezuma
Port of Oakland Inner/Outer (Corps O&M)	Port of Oakland	11-03	2006	300	RBC	2005	annual	Corps	C	Montezuma, MH
Maintenance (55,56,57,58,59,67,68)	Port of Oakland		28-Jun-05	1.8	RBC	7-Jun-0	annual		C	SF-11
Federal (22,23,24,25/26,30)	Port of Oakland		2006	197	RBC		new work		CH	A; SF-8; SFDO
Port of SF (berth 35 E & W)	Port of SF		2006	60	RBC	2005	annual	D	C	SF-DOD S
Port of SF Berth 27	Port of SF		2006	CY133	RBC	2006		D	C	U
Port Sonoma (aka Desert Aggregates)	Sonoma	M97-45	2006	100	RB	2005	annual		H	U
Richmond Inner Harbor (Corps)	Richmond	11-03	2006	900	RBC	2005	annual	Corps	C	SF-DOD S
Richmond Outer Harbor (Corps)	Richmond	11-03	2006	275	RBC	2005	annual	Corps	H	SF-11
Richmond Yacht Club	Richmond	M82-57	2006	10	RBC	2004		SR	C/H	SF-11
Schnitzer Steel	Oakland	M84-35	2006	25	R	2000			C	SF-11
Shore Terminals, Richmond	Richmond		2006							
Strawberry Channel/Cove Apts	Mill Valley		2006	40	RBC	2005	10 years	SRC	C/H	SF-11
Bay/NYSlough Channel (Corps)	Suisun Bay	11-03	2006	300	RB	2005	Annual		C	SF-16
Valero, Benicia	Benicia	M81-79	2006	80 +1 KD	RBC	2005	Quarterly (4 X per year)	D	C	SF-9

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DMMO	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS	HAVE POST DREDGE SURVEY?
SAR approved. AA submitted			8/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/least tern	Potential Knockdown	
			8/1-11/30	NOAA/steelhead/salmon/delta smelt	Completed	
Programmatic SAP approved Feb 2006			? to 11/30	NOAA/steelhead/salmon/delta smelt	Need to consult for Delta smelt	
SAR approved March 2005			8/1-11/30	NOAA/steelhead/salmon USFWS/tern/herring	Will submit Tier I request for additional volume	
SAR approved March 2005			8/1-11/30	NOAA/steelhead/salmon USFWS/tern/herring	Not dredged in 2005	
Will need Tier I			9/1 to 10/15	NOAA/steelhead/salmon	Cooper is investigating	NO *
Submitted SAP	September 14, 2005	Oct-05	6/1 to 11/30	NOAA/steelhead/salmon/herring	Corps waiting for additional 2005 postdredge info.	Yes
SAR approved July 2005	June 8, 2006	Jul-06	6/1 to 10/31	NOAA/salmon/herring	Currently dredging	
			6/1-11/30	NOAA/Steelhead/salmon USFWS/Delta Smelt	Brenda will call Dennis	Yes
SAR approved January 2004	Unknown	Sep-05	6/1-10/31	NOAA/Steelhead/salmon DFG/herring	Corps waiting for 2005 postdredge	Yes
Tier I Jan 2006	June 15, 2006	August	6/1 to 11/30	NOAA/steelhead/salmon DFG/herring(?)		Yes
SAR approved March 2006	June 12, 2006	Oct-06	6/1-10/31	NOAA/steelhead/salmon/coho USFWS/Clapper rail/harvest mouse	Complete	
SAR approved 9/9/05	October 16, 2006		6/1-11/30	steelhead/salmon/herring	Need to submit AA	
Approved	October 3, 2006	Nov-06				Yes
Ep1 September	June		6/1 to 10/31	NOAA/steelhead/coho/chinook DFG herring	Concurrent Dock Replacement	Yes *
Tier one approved	October		Aug-December	steelhead		Yes
SAR June 05		20-Nov-05	6/1-10/31	DFG/herring, NOAA/steelhead/salmon	Concluded consultation	Yes
SAR June 05	November 9, 2007	Nov-07	6/1 to 10/31	DFG/herring, NOAA/steelhead/salmon	Dredged sporadically	No

			6/1-11/30	NOAA/steelhead/salmon	Tier I under review; need AA	Yes
Tier I June 05			6/1 to 11/30	NOAA/steelhead/salmon	DOP issued Aug 2005	
SAR June 2005			N/A	DFG/herring NOAA/steelhead/salmon/least tern	Ongoing	Not yet
SAR, 1998	January 1, 2006	Jun-0	N/A	N/A	Ongoing	Yes (for Berths 22-26, 30, 67-68)
Tier I June 05			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	To be done with new work	Yes
Submitted Tier I, Berth 55, 56	August 1, 2006		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	Pending episodic approvals	Yes
	Ongoing	3/1-11/30		DFG/herring NOAA/steelhead/salmon/least tern	Electricity issues	Yes
SAR March 2006	Completed		3/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Completed, Survey being done	
SAR Approved	New Episode		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Port conducting reconnaissance survey	
	October 18, 2006	-Dec-0	7/1-11/1	NOAA/steelhead/salmon	Disposal issues at Carneros River Ranch w/ Sonoma Land Trust/ On site Dredge Barge	Yes
Tier I from EPA	September		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	requesting consultation	Yes
Tier I pending AA	June 1, 2006		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete	
SAR October 04 Ep 2	June 1, 2005	-Nov-0	6/1 to 11/30	NOAA/steelhead/salmon	Dredging episode 1 & 2. Using 6 in overdepth. Dredging almost complete	Yes
	October 28, 2006	-Nov-06				Yes
Tier I July 03	June		6/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/clapper rail	Continuation of 2005 dredging in Cove Apartments. DOP submitted but will be held until 2005 postdredge issue resolution	
Tier I pending AA	June		8/1 to 11/30	NOAA/steelhead/salmon USFWS/delta smelt	Dredged w/ Pinole	Yes
	Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30	NOAA/steelhead/salmon		Yes

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POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?		
		Could not find record of the project			
20-Oct-06	Yes	Significant exceedance of overdredge allowance in 50% of Berth 4 - Maneuvering Area, Berth 4 and Berth 3 by average of 0.5 - 0.75 ft. * authorized to remove 200,000 cy and actually removed 204,408 cy * Sent us new better version of the PD survey in March			
		Doesn't look like they dredged in 2006 - Found PD Survey from 2005 for Basin 2 and 4 in permit file.			
7/29/2006	J. Hamburger	five years, for a total of 450,000 cy, to be completed by April 16, 2009; actually dredged 42,884			
25-Sep-06	Yes	* PD Survey for episode 2 * Minimal exceedance of overdredge allowance in a few places by an average of 0.2 - 0.4 feet * Authorized to remove 11,900 cy and actually removed 19,940 cy			
7/7/2006	Yes	* Authorized to remove 300,000 cy over five years; removed 26,100 cy this episode * Minimal overdredge exceedances by average of 0.2 - 0.3 ft in Areas 1 and 2			
11-Oct-06	Yes	* PD Survey for 2006 Episode * Gross exceedance of overdredge allowance in 60-75% of area of Piers 22 and 23 by avg of 0.5 - 1.5 ft * BCDL CN authorizes the removal of 60,000 cy; actually removed 48,144 cy			
	No	Have electronically			
Jan-07	No	AS OF 3/10/07 - left phone message for Justin Semion			
20-Nov-06	Yes	* Authorized to remove 100,000 cy of material over five years - removed 26,584 cy in 2006 episode * Exceedance of overdredge allowance in Channels A, B, and C by an avg of 0.2 - 0.5 ft for 25-40% of areas; Exceedance of overdredge allowance in Channel D, and South Channel by an avg of 0.2 - 0.5 ft for 25-25% of area; occasional exceedances of overdredge allowance in Channel E, and South Channel			

11/21/2006	Yes	* Not sure where authorized dredge boundary is - looks like entire half of channel exceeds overdredge depth allowance by 2 feet		
		Emailed Rita Foti for PD Surveys		
November 2006-January 2007	Yes	Berths 22-26, 30, and 67-68; actually removed 95,715 cy * Significant exceedance of authorized overdredge in Berths 22, 23 and 30 (10-15% of area); minimal exceedance in Berth 24		
1/4/2006	* No	* Looks like authorized dredged depth is -42' MMLW (plus 2' overdepth allowance); entire channel is several feet deeper in PD survey ??		
	No			
	No			
19-Dec-06	Yes	*Removed 66,000 cy from marina and placed 9,000 cy in disposal ponds; far less than was authorized in both cases.		
1/16/2007	Yes	*A couple problem areas that exceeded authorized dredged depth by average of 0.5-1 ft; otherwise, minimal exceedances		
19-Nov-05	Yes	* PD Survey for episode 1,2 * Authorized to dredge 28,000 cy; actually removed 27,458 cy * Minimal exceedance of overdredge allowance by no more than .025-0.50 ft.		
6-Nov-06	Yes	* authorized to remove 30,000 cy (over five years) and actually removed 9,655 cy * Significant exceedance of authorized overdredge depth over 25-30% of dredge area by average of 0.1-0.3 ft. * PD Survey re-sent to us but new copy still hard to read		
11/8/2006	No			
April 7, 2006 July 23, 2006 September 21, 2006	Yes	* Authorized to remove 80,000 cy of sediment annually; removed 15,850 in the first event (feb 07)* * Essentially no exceedance of authorized overdredge depth PD Survey sheets never seem to include dredge boundary; Pre-D sheets do however		

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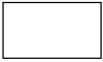
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	PROJECT	CITY/LOCAL	BCDC Permit#	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED
2	Arques Shipyard & Marina	Sausalito		2005	10	RBC	2004
9	Bel Marin Keys (Creek)	Novato		2005	61	RBC	
5	Benicia Marina	Benicia	5-77	2005	15	RBC	2005
13	BP Terminal	Richmond		2005	20	RBC	2004
33	Napa Valley Marina	Napa	20-78	2005	15	RB	
36	Oakland Yacht Club	Oakland		2005	0.5	R	
42	Petaluma River (Corps O&M)	Petaluma River		2005	250		
26	Port of Oakland Deepening (new work - Middle Harbor, Corps) Phase 3D	Port of Oakland	1-03	2006	990- 1 mil	RBC	
44	Port of Oakland Maintenance (berths 60-63)	Port of Oakland		2005	120	RBC	2003
47	Port of SF (Berths 80/90/	Port of SF		2005	220	RBC	2002/ 2003
48	Port of SF (Fisherman's Wharf)	Port of SF		2005	45	RBC	2000
49	Port of SF (South Beach	Port of SF		2005		RBC	
50	Redwood City Harbor (Corps)	Redwood City		2005	250	RBC	
55	Richmond-San Rafael Bridge Retrofit			2005		RBC	

61	San Rafael Rock Quarry	San Rafael		2005	6		
72	US Coast Guard Station Golden Gate	Sausalito		2005	6.5	C	
43	Valero, Benicia	Benicia	M81-79	2005	80 +1 KD	RBC	2004
82	Vallejo Yacht Club	Vallejo	M99-26	2005	122.266°W	Jim McCarthy	707/643-1254

FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO	START DATE	FINISH DATE	WORK WINDOW
	WD	C	SF-11	Tier I for Ep1A	June	Aug	6/1 to 10/31
		H	U, Levaroni	Tier I, June 2005			9/1-11/30
Annual			SF-9	Programmatic SAP approved Feb 2006	November 21, 2005	29-Dec-05	? to 11/30
		C/H	SF-11, Winter Island				6/1 to 11/30
		H	Napa Sea Ranch	SAR for Ep1 Jan 05			7/1-12/31
one time project		C	SF-11	SAR June 05			8/1-11/30
6 years	Corps		U	20		30-Oct-02	8/1 to 10/15 (consult)
new work	Manson	C	Montezume	SAR, 1998	January 1, 2006	1-Jun-06	N/A
annual	D	C	SF-11, U	SAR November 04	September 1, 2005	15-Sep-05	8/1 to 11/30
Biennial	D	C	SF-11	SAR October 2005	March 28, 2005		6/1 to 11/30
3-5 yrs	Cooper	C	SF-11	SAP June 04	September 1, 2005		6/1 to 11/30
annual	Corps			SAP Feb 05			6/1-11/30

			SF-10				n/a
annual		C	SF-11	SAR April 05			6/1 to 10/31
Quarterly (4 X per year)	D	C	SF-9		Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30
					28-Apr-05	28-Apr-05	Need to consult year round for Delta Smelt

CONSULT AGENCIES/ SPECIES	COMMENTS	HAVE POST DREDGE SURVEY?	POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?
NOAA/salmon	Dredging Completed					
NOAA/steel head USFWS/clapper rail						
NOAA/steel head/salmon/delta smelt		Yes	5-Jan-06	Yes	* PD Survey for Event 1 and 2 * Removed 6,642 cy of material * Minimal exceedances of authorized overdredge depth by 0.1-0.2 ft in outer channel and by 0.5-1.0 ft in docks B,C, and D	
NOAA/steel head/salmon DFG/herring						
	Timing issues. Need to consider salinity of material if it is to be used as farm cover					
NOAA/steel head/salmon USFWS/leas tern DFG/herring	Clearing storm drain outfall. Need USACE and RCDC					
NOAA/steel head/salmon	Formal Consultation Work Complete for 2003					
N/A	Ongoing	Yes (for Berths 33-33)	12/9/2005	Yes	cy from Berth 32, 33 and gap between them; Actually removed 102,737 cy. * Dredge footprint not clearly labelled on map * Somewhat significant overdredge occurrence in approx 5-10% of dredge area by average of 0.2-0.3 ft below authorized overdredge depth; a couple bad areas where exceedance by 0.6-1.0 ft	
NOAA/Steel head/Salmon DFG/Herring USFWS/leas tern	DOP issued 8/8/05					
NOAA/steel head/salmon	Will be submitting DOP shortly					
DFG/herring NOAA/steel head/salmon	Ongoing					
NOAA/steel head/salmon	Pending Funding					

NOAA/steel head/salmon DFG herring	Dredging Completed					
NOAA/steel head/salmon		Yes	February 27, 2005, June 2, 2005, August 6, 2005 October 10, 2005	Yes	work dates and event time., see folder * Very minimal exceedance of authorized overdredge depth by avg. Of 0.5ft during event 2 (July-Aug) * PD Survey sheets never seem to include dredge boundary; Pre-D sheets do however * No exceedances of authorized overdredge depth * Authorized to remove from 800 cy from marina (500 cuy) and entrance cut (300 cy); actually removed 521 cy * PD Survey very poor quality - not enough soundings and didn't summarize quatity removed from which areas of project	
NOAA Steelhead and Chinook Salmon/DFG Herring/US FWS Delta Smelt	Dredging Completed	Yes	4/28/2005	Yes		

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	PROJECT	CITY/LOCALITY	BCDC Permit#	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)
3	Townhouses	Alameda		2004	13	RBC		8 years
18	Emeryville City Marina	Emeryville		2004	88			5-7 years
20	Marina	Vallejo		2004				
26	Marin Yacht Club Harbor	San Rafael	M92-45	2004	12	RBC		4-5 years
37	Oyster Cove Marina	South San Francisco		2004	100			20 years
43	Oakland (Berth 22)	Port of Oakland		2004	80	RBC		new work
45	Redwood City Berths	Redwood City		2004				
57	San Francisco Dry Dock/BAE Systems	San Francisco	M93-13	2004				
68	South Beach Yacht Harbor	SF Redevelopment		2004	16	RBC (Port)		10 yrs (?)
43	Valero, Benicia	Benicia	M81-79	2004	80 +1 KD	RBC		Quarterly (4 X per year)

CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
WD	C	SF-11	1	March 15, 2003	15-Jun-03	8/1 to 11/30	DFG/herring NOAA/steel head/salmon	completed; dredging 2nd 1/2
SRC	C	SF-11	3.3	Unknown	completed	8/1 TO 11/30	DFG/herring	Dredging Completed early 2004
SR	C	SF-10	3.5			3/1 to 11/30	DFG/herring	Waiting on State Lands Lease - June?
		SF-11				3/1 to 11/30	DFG/herring NOAA/steel head/salmon	partially done 2003 PCB issues 2004 (?)
	C	MH, Berth 10		April 29, 2004	26-May-04	6/1 to 11/30	NOAA/steel head/salmon	Consultation complete
		SF-11						
D	C	SF-11	10	March 1, 2004		6/1 to 11/30	DFG/herring NOAA/steel head/salmon	Completed under Port of SF Master Permit; consultation underway
D	C	SF-9		Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30	NOAA/steel head/salmon	

HAVE POST DREDGE SURVEY?	POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?				
Yes	11-May-04	Yes	Significant exceedance of overdredge allowance by approx. 1 ft. in Berth 3 East * Not certain of quantity of material removed for this episode					
Yes	November 8, 2004 (Event 4)	Yes	* No exceedance of authorized overdredge depth					

PROJECT	CITY/LOCALITY	BCD C Permit #	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE
			YEAR	RANGE						
Alameda County flood control	various around county									
Ballena Isle Marina	Alameda			60			8 years			
Bay Bridge access channel	East side of Bay Bridge			157			once	M		
Bay Bridge Cofferdam Excavation	New east side Bay Bridge west bound lanes		2003	120	RBC		once	M	C	SF-11
Bay Bridge Glory Hole Dredging	New east side Bay Bridge west bound lanes		2003	48 to 60	RBC		once	M	C	SF-11
Baylink Ferry Terminal										
Benicia Marina	Benicia		2003		RBC	2005	Annual			SF-9
Benicia-Martinez Bridge Retro/New										
Cargill - Napa River	Napa		2003	75						
Castrol Richmond Terminal	Richmond									
ConocoPhillips, Richmond	Richmond									
Corona Del Mar Association	Alameda		2003	0.5			7 years	WD	C	SF-11
Emery Cove Marina	Emeryville						5 years			
Lagoon	Foster City									
Greenbrae Marina	Larkspur			60	RBC(?)		8 years		C	SF-10 or SF-11
Homeowners										
IMTT Richmond Terminal	Richmond									
Loch Lomond Marina	San Rafael		2003	15			4-5 years	WD	C	SF-10 or SF-11
Harbor	San Rafael		2003		RBC					
Mare Island Berth 22/23 (Weston) Marina	Mare Island		2003	50			once	M	C	SF-9
Marina Plaza Harbor	Sausalito		June 25, 1900				7 years	SR		SF-11
Marina Vista Canal	San Rafael		2003	3.5	RBC		2 years	WD	C	SF-10 or SF-11

	Martinez		2003	20						
Martinez Marina										
Costa Power Plant										
Napa River Channel	Napa		2003							
National Gypsum Terminal										
Oyster Point Marina	South San Francisco									
Ramp	Pittsburg									
Pittsburg Boat Stormdrain	Pittsburg									
Marina	Redwood City									
Richardson Bay Marina formerly Kappas Marina	Sausalito									
Richmond City Marina	Richmond									
Richmond Marina Bay	Richmond									
San Leandro Bay	San Leandro									
San Leandro Small boat lagoon	San Leandro									
San Rafael Channel (Corps)	San Rafael			70.3			5 years	Corps		
San Rafael Yacht Harbor	San Rafael									
Sausalito Yacht Harbor	Sausalito									
Schnitzer Steel, Oakland	Oakland									
Schoonmaker Point Marina	Sausalito		2003	20	RBC		10 years	WD	C	SF-11
Sea Scouts	Larkspur		2003	0.6	RBC		5 years	WD	C	SF-10
Shore Terminals, Martinez	Martinez		2003	4				M	C/H	SF-9
Sunnyvale, City of	Sunnyvale		2003	6						
Tesoro-Hastings Slough										
Tosco Richmond	Richmond									
Vallejo Ferry Terminal	Vallejo									
Vallejo Marina North	Vallejo		2003	35			5 years	WD	C	SF-9
South	Vallejo		2003	Unknown			5 years		C	SF-9
Island	Ryer Island						5 years			

DMM O	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECI ES	COMMENT S	HAVE POST DREDGE SURVEY?	POST DREDGE SURVEY DATE
	EST.	EST.					
			3/1 to 11/1	DFG/herring NOAA/steelhead/s almon			
			6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Done 2002, maintenance maybe necessary		
6	December 1, 2003	1-Mar-04	6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Schedule depends on east bound lanes const.		
12	June 1, 2003	1-Aug-03	6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Schedule depends on east bound lanes const.		
	October 22, 2003	29-Nov-03	? to 11/30	NOAA/steelhead/s almon/delta smelt	Need to consult for Delta smelt	Yes	Dec-03
			8/1 to 11/30	USFWS/Spratt NOAA/steelhead/s almon			
			6/1 to 11/30	DFG/herring NOAA/steelhead/s almon			
N/A	March 1, 2003	1-Apr-03	6/1 to 11/30		Work Completed 2002		
			6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Done 2002		
2.5	June	Unknown	6/1 to 10/31	DFG/herring, NOAA/steelhead/s almon			
3	Unknown	Unknown	1/1 to 12/31	NOAA/steelhead/s almon	Work Completed		
				NOAA/steelhead/s almon			
			6/1 to 11/30	DFG/herring, NOAA/steelhead/s almon/coho			
2.5	Unknown	Unknown	6/1 to 12/31	NOAA/steelhead/s almon			

	December 12, 2003	29-Dec-03					
						Yes	31-Dec-03
			8/1 to 11/30	USFWS/Spratt NOAA/steelhead/salmon			
			3/1 to 11/30	DFG/herring, NOAA/steelhead/salmon			
			6/1 to 11/30	NOAA/steelhead/salmon	Completed for 2003		
3	June 1, 2003	1-Aug-03	6/1 to 11/30	DFG/herring NOAA/steelhead/salmon/coho			
	Unknown	Unknown	6/1 to 10/31	NOAA/salmon			
10					net exclusion requested		
3.75	August 1, 2003		8/1 to 10/14	NOAA/steelhead/salmon	insufficient time to complete		
			8/1 to 10/14	NOAA/steelhead/salmon			
			6/1/ to 11/30	NOAA/steelhead/salmon			

[illegible]

2009 Dredging Projects

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PROJECT NAME	CITY/ LOCALE	EPIISODE 2009 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUEN CY (if known)	CONTRAC- TOR (if known)	EQUIP- MENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SP ECIES	COMMENTS
Alameda Ferry Terminal	Alameda	22		1990			C	SF-8	SAR approved			8/1 - 11/30	DFG/herring NOAA/steelhea d/salmon FWS & DFG/least tern	Currently considering a hopper dredge. Hard sand, not suitable for Alcatraz
Alameda Point Channel	Alameda	20	RBC	2008	3-Feb		C/Beam	In situ				8/1 to 11/30	DFG/herring NOAA/steelhea d/salmon FWS & DFG/least tern	Knockdown - potential for 2010
Alviso Launch Ramp	Santa Clara	1.1	RBC	New			C	Upland	SAR approved	October		9/15 to 11/30	NOAA/steelhea d FWS & DFG/clapper rail/least tern	DOP approved
Alviso Marina Boat Ramp (Santa Clara Parks Dept)	Alviso	5-6	RBC	new			C	Upland	SAR approved			9/15 to 11/30	NOAA/steelhea d FWS & DFG/clapper rail/least tern	Complete
Ballena Isle Marina	Alameda	43		2002	7			SF-11	SAP Approved			8/1 - 11/30	DFG/herring NOAA/steelhea d/salmon FWS & DFG/least tern	Potential for 2010
Berkeley Marina	Berkeley	8-9	RBC				C	SF-11	SAR approved			8/1 to 11/30	NOAA/steelhea d/salmon FWS/tern/herrin g	DOP in
Belvedere Land Company	Belevedere							SF-11	Tier One Approved			6/1 to 10/31	NOAA/steelhea d/salmon/coho DFG/herring	Eelgrass issues- potential for 2010
Benicia Marina	Benicia	0.5	C	2008	2-3 years	PHIL JOY	Knockdow n	none	Tier One Approve, for knockdown SAR in review	late October/ November		Need to consult for smelt year round	NOAA/steelhea d/salmon FWS/delta smelt (less than 10 ft depth)	Knockdown underway, Will likely dredging until November 30th only

2009 Dredging Projects

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BP Richmond Terminal	Richmond	15	C (see note)		3-4 years			SF-11, potentially berth 10 - PoO/ HWRP/ SFDODS	SAR approved			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	IAA is pending. Needs BCDC permit amendment and wq cert. 2010
Brickyard Cove HOA	Richmond	5	RBC	1980's	15 years		C	SF-11	Testing Complete			6/1-11/30	NOAA/steelhead/salmon DFG/herring	DOP Reviewed
California Maritime Academy	Carquinez Strait	37		1988			C	SF-9	Testing Complete			8/1-11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Eelgrass, contaminant issues - likely 2010
Chevron Long Wharf	Richmond	100	RBC		Annual	D	C	Out of Bay	SAP Approved			6/1-11/30	NOAA/steelhead/salmon DFG/herring	Underway
Clipper Yacht Harbor, Basin One	Sausalito	14		2007			C	SF-11				6/1 to 10/31	NOAA/steelhead/salmo/coho DFG/herring	Likely 2010
ConocoPhillips	Rodeo	45	RBC	2008	Annual	D	C	SF-8, SF-9 Hamilton	Testing Complete	20-Oct	22-Oct	6/1 to 11/30	NOAA/steelhead/salmon	Underway
Exploratorium (PoSF Berths 17/19)	San Francisco	85		1980's			C	SF-11, Hamilton	SAP Approved	October		6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Glen Cove Marina	Vallejo	99	R	2003	8-10 years		C	SF-9	SAR approved	October		8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Needs BCDC and Crops Permit and DOP approval
Greenbrae Marina	Larkspur	18		2006	3-4 years		C	SF-11	SAP Approved			6/1 to 10/31	NOAA/steelhead/salmo/coho DFG/herring	Likely 2010
Hanson Aggregates (at Tidewater Ave)	Alameda	13					C	upland	SAP Appr.			8/1 - 11/30	DFG/herring NOAA/steelhead/salmon FWS least tern	Needs property documents from Corps.
Levin-Richmond	Richmond	5		2006	3-4 years		C	Upland	SAR Approved NUAD			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Mercury- Due to disposal issues and navigational hazards, may need to work outside of window
Lowrie Yacht Harbor	San Rafael						C	SF-10						Potentially 2010
Mare Island Dry Dock (ADR)	Napa River	104		1994			C	SF-9	SAR Under review			8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	Likley 2010

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Oakland Inner and Outer Harbors (Corps)	Oakland	400					C	Hamilton		July		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Complete
Oyster Cove Marina	South San Francisco	38	RBC	2006			C	SF-11		September		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway
Oyster Point Marina East Basin	South San Francisco	35	RBC	2007			C	SF-11	SAR Approved	September		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway
Paradise Cay Homeowners Association	Marin	44	RC	2007			C	SF-11	SAP Approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	DOP approved
Paradise Cay Yacht Club	Marin	61	C	2008			C	SF-11	SAP Approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Not until 2010
Pelican Harbor	Sausalito	35					C	SF-11	SAR approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Likley not until 2010
Petaluma Marina	Petaluma	38.5	C	2007	5		H	Schoellenberger	SAP Appr.; testing results to go to June DMMO mtg	asap		6/1 to 10/31	NOAA/steelhead	Schoellenberger needs to be cleaned out prior to placement - likely not until 2010
Pinole Shoal Channel (Corps) Advanced Maintenance (Stimulus)	Pinole	175		New			C	SF-8	Testing Complete	September		6/1 to 11/30	NOAA/steelhead/salmon	CD amendment requested, but not responded to
Pinole Shoal Channel (Corps)	Pinole	175	RB	2008			H/C	Hamilton/SF-10/SF-9	Tier One Approved			6/1 to 11/30	NOAA/steelhead/salmon	Complete
Port of Oakland Berths 22, 23, 24-26, 30, 32, 33, 35-37, 55-56, 57-59	Oakland		RBC	2008	Annual	D	C	SF-11	Testing Complete	August		8/1 - 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Episode One underway
Port of Redwood City Berths	Redwood City	18-20		2004	4-5 years			SF-11	SAP Appr.; testing and re-testing done; ok for in-Bay?			6/1 to 11/30	NOAA/Steelhead	Likely 2010

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Port of San Francisco, Berth 27	San Francisco	39	C	2008	Annual	D	C	SFDODS	SAR Under review			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	
Port of San Francisco, Central Basin	San Francisco	253	RBC				C	Hamilton/SF-DODS	SAP Approved pending revisions			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Port Sonoma	Petaluma	50	RBC	2008	Annual		H	Upland/Carneros River Ranch		December / January				Consultation in Place
Redwood City Harbor Channel (Corps) Stimulus Funds	Redwood City	500	RBC	2008				Bair Island Reuse/Upland		October		6/1 to 11/30	NOAA/Steelhead	
Redwood Shores	Redwood City	67	RBC				C/H	Bair Island Reuse/Upland	Testing Complete			none	Not in Bay	Site prep underway
San Francisco Main Ship Channel (Corps)	Golden Gate	500	RB	2008	Annual	Essayons	Hopper	SF-8, Ocean Beach	Tier One Approved	1-Jun		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Complete
Richmond Outer Harbor (Corps)	Richmond	150	RB	2008	Annual	Essayons	Hopper	SF-11	Testing Complete			6/1-11/30	DFG/herring NOAA/steelhead/salmon	Complete
Richmond Inner Harbor (Corps)	Richmond	250	RB	2008	Annual	Vortex	C	Hamilton	Testing Complete	15-May		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Underway
River Park Marina	Napa	17	R			WD	E	Winter Island	Testing Complete					
San Francisco Marina, City of SF	San Francisco	26	RB	2005		Jerico	C/H	upland	Testing Complete	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Entrance Channel Complete
San Francisco Yacht Club	Belevedere	20	RBC				C	SF-11	Testing Complete			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Complete
J. Maltester Channel/ San Leandro Channel (Corps)	San Leandro	86	RB	2001			H	Upland	Testing Complete			6/1 to 11/30	NOAA/steelhead	Likely 2010??

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San Rafael Rock Quarry	San Rafael	16					C					6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	
San Rafael Yacht Club	San Rafael	18	RBC	2008			C	SF-10/WI				6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Mercury, ongoing
San Rafael Homeowners	San Rafael	0.44		2005			C	SF-10				6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Sausalito Harbor	Sausalito						C	SF-11	SAP Appr.			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Strawberry Channel	Mill Valley	2			new		C	New Work?						Likely 2010
Suisun Bay Channel/New York Slough (Corps)	Suisun	175	RB	2008	Annual		C	SF-16	Tier One	September		8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Requested Amendment to CD and Water Quality Cert, no response to info request
Tidewater Aquatic Center	Oakland	3.5-4	RBC	new		WD	C	Upland	Testing Complete			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway
Valero	Benicia	80	RBC	2007	Quarterly		C	Hamilton SF-DoDs, Winter Island	Sap Appr. For 2009; plan to test fall '08	Ongoing		8/1 to 11/30	FWS/delta smelt NOAA/steelhead/salmon	Consultation allows for year round work.
Vallejo Yacht Club	Vallejo	25	C	2008			C	SF-9	SAP Approved			8/1 to 11/30	FWS/delta smelt NOAA/steelhead/salmon	Underway

PROJECT NAME	CITY/ LOCALE	EPISODE 2010 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENC Y (if known)	CONTRAC- TOR (if known)	EQUIP- MENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECI ES	COMMENTS
Aeolian Yacht Club	Alameda	1.8k	BC	2007		Western Dock	E	WI/Auggie's Island	SAR approved	October	November	8/1 - 11/30	DFG/herring NOAA/steelhead/sa lmon FWS & DFG/least tern	Some Hg issues heading to Winter Island
Alameda Ferry Terminal	Alameda	6	RBC	2009			C	Winter Island	SAR approved		November	8/1 - 11/30	DFG/herring NOAA/steelhead/sa lmon FWS & DFG/least tern	Corps needs to issue modification to the permit, need contractor
Amports/Benicia Port Terminal	Benicia	90	C	2007	3 years		C	Hamilton/SF- 9	Tier One approved	November		Aug 1- Nov 30	NOAA/steelhead/sa lmon FWS/delta smelt	IAA approved
Antioch Marina	Antioch		RC			Western Dock	C	In coffer dam?				Aug 1- Nov 30	NOAA/steelhead/sa lmon FWS/delta smelt	Anticipating extension request
BAE (San Francisco Dry Dock)	South San Francisco	44	RBC	2008	2 years	D	C	SFDODS	SAR approved	October	November	June 1- November 30	DFG/herring NOAA/steelhead/sa lmon	Episode approved
Benicia Marina	Benicia	36	C	2008	2-3 years	Salt River	C	none	SAR	July	November	Aug 1- Nov 30	NOAA/steelhead/sa lmon FWS/delta smelt (less than 10 ft depth)	working weekends only
Brickyard Cove HOA	Richmond	2	RBC	1980's	15 years		C	SF-11	Testing Complete			6/1-11/30	NOAA/steelhead/sa lmon DFG/herring	complete
California Maritime Academy	Carquinez Strait	37	RBC	1988		Salt River/Weser n Dock	C	SF-9/Berth 10	Testing Complete	late October		8/1-11/30	NOAA/steelhead/sa lmon FWS/delta smelt (depth > 10 ft)	DOP and episoda approval in place. NUAD material being dredged first, may need to dredge a channel to get to it through SUAD material -work with agencies to develop sequencing
Chevron Long Wharf	Richmond	100	RBC		Annual	D	C	SF-11	SAR Approved			6/1-11/30	NOAA/steelhead/sa lmon DFG/herring	Underway. Needs to take 22% to Hamilton, request an extension to do so late in the season
Chevron Rod & Gun Club (Castro Cove)	Richmond	150	R				H	Castro Cove (onsite)	SAR approved			7/1-11/30	NOAA/steelhead/sa lmon	Delayed to 2011
Coyote Point Marina	San Mateo	50	RBC					SF-11	SAR Approved			6/1-11/30	NOAA/steelhead	Underway, will push window
ConocoPhillips	Rodeo	13	RBC	2009	Annual	M	C	SF-8, SF-,9 Hamilton	Testing Complete	20-Oct	22-Oct	6/1 to 11/30	NOAA/steelhead/sa lmon	IAA Approved
Emeryville Marina	Emeryville	0.3	B	2008		Salt River	C	SF-11	Requesting Tier One			8/1-11/30	NOAA/steelhead/sa lmon DFG/herring/least tern FWS	Two high spots candidate for a knockdown
Exploratorium (PoSF Berths 17/19)	San Francisco	65	RBC	1980's		D	C	SF-11	SAR Approved	October	November	6/1 to 11/30	NOAA/steelhead/sa lmon DFG/herring	Underway

Glen Cove Marina	Vallejo	70	RBC	2003	8-10 years	Western Dock	C	SF-9	SAR approved		November	8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Underway
Greenbrae Marina	Larkspur	18	RB	2006	3-4 years	Salt River	C	SF-11/upland	SAP Approved	August	November	6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring/Clapper Rail/Salt Marsh Harvest Mouse.	Dredging. Must stay outside of 250 feet from marsh until September. Mercury issues Requesting extension until November 30th.
Hanson Aggregates (at Tidewater Ave)	Alameda	1.5	RBC	1980		Salt River	C	WI	SAP Appr.			8/1 - 11/30	NOAA/steelhead/salmon FWS least tern	DOP in on 10/14
Levin Richmond	Richmond	6.5	RBC				C	Berth 10	SAR approved			6/1-11/30	DFG/herring NOAA/steelhead/salmon	Complete?
Larkspur Ferry Terminal	San Rafael	500	RB	2005	4 years	Dutra/Western Dock	C	Hamilton, SFDODs, SF-10	SAR approved	August	November 10th	6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway, shallow area complete
Lowrie Yacht Harbor	San Rafael	20					C	SF-10	SAR Approved					Needs permits, likely 2011
Montezuma Harbor	Suisun	2	BC	2004			C	Upland				8/1-11/30	Delta Smelt FWS/Salmonids NOAA	Applications in, no request to DMMO
Mare Island Dry Dock (ADR)	Napa River	104	RBC	1994			C	SF-9	SAR Approved			8/1 to 11/30 (subject to change per individ. Consultant)	Delta Smelt smelt/steelhead/salmon	But they are still trying to dredge in 2010. No DOP yet
Marina Bay Yacht Harbor Richmond Bay LLC	Richmond	74					C	SF-11/SF-DODS	SAR Approved			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Permits pending; dredge 2011 Eelgrass present, contaminant issues
Marina Vista	San Rafael	12		2005		Salt River	C	SF-10/SF-11/WI	SAP approved					Hg hit, evaluating individual cores
Main Ship Channel (ACE)	San Francisco	500	RB	2009	Annual		C	SF-8	SAR Approved					Complete
Napa Yacht Club HOA	Napa	97	RB	1998		Western Dock	C	SF-9/Upland	SAR Approved			8/1-10/15		Planning to dredged 2010. NOAA EFH underway
Oakland Inner and Outer Harbors (Corps)	Oakland	700	RB	2009		M	C	Hamilton	SAP approved	October	February	8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Late start, contracting issues, will require consultation to complete.
Oyster Point Marina	South San Francisco	51	RBC	2009			C	SF-11	SAR Approved	June		6/1 -11/30	DFG/herring NOAA/steelhead/salmon	East Basin, complete
Paradise Cay Homeowners Association	Marin	44	RC	2007		Salt River	C	SF-11	SAR Approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Coomplete
Pelican Harbor	Sausalito	22	RBC			Western Dock	C	SF-11	SAR approved	October	November	6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Underway
Pinole Shoal Channel (Corps)	Pinole	175	RB	2009			Essayons	SF-10/SF-9	SAR approved			6/1 to 11/30	NOAA/steelhead/salmon	Complete

Port of Oakland Berths 25, 26, 30, 32 33, 35, 37, 57, 58, 59, 60, 61, 62, and 63	Oakland	76	RBC	2008	Annual	D	C	SF-11	SAR and Tier One Approved	August	30-Nov	8/1 - 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway: 40% to Alcatraz complete, 60% to Hamilton delayed until offloader is available. Request consultation.
Port of Redwood City Berths	Redwood City	18-20		2004	4-5 years	M	C	SF-11/SFDODs	SAR approved	October		6/1 to 11/30	NOAA/Steelhead	Likely 2010.
Port of San Francisco, Berth 35	San Francisco	52	RBC	2009	Annual	D	C	SFDODS	SAR Approved	August		6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Complete
Port of San Francisco, Berth 27	San Francisco	40	RBC	2008	2 years	D	C	SF-11	SAR Approved	October		6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	DOP approved, Start work after Exploritorium
Port Sonoma	Petaluma	80	RBC	2008	Annual	Cal Dredging	H	Upland/Carneros River Ranch		December / January			NOAA/steelhead/salmon	Consultation in Place, need longfin take permit
Mallard Island	Contra Costa	33		1987	30 years		C	SF-9						2012
Richmond Outer Harbor (Corps)	Richmond	200	RB	2009	Annual	D	C	SF-11/Hamilton	SAR approved	November		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Late contract, need consultation
Richmond Inner Harbor (Corps)	Richmond	250	RB	2008	Annual	D	C	Hamilton	SAR approved	November		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Late contract, need consultation
River Park Marina	Napa	17	RC	2009		WD	E	Auggie's Island	SAR approved	October	November 15th	6/1-10/15	NOAA/steelhead/salmon	Completing from 2009, requesting extension from DFG to 10/30
San Francisco Marina, City of SF	San Francisco	13	RB	2005			C/H	upland	SAR approved	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
San Rafael Rock Quarry	San Rafael	16					C		SAR approved			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Dredging in 2011?
Schnitzer	Oakland	7		2007			C	SF-11	SAR approved			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	
USCG Yerba Buena Island	San Francisco						C	SF-11	SAP revised				6/1 - 11/30	Permits pending; 2011, eelgrass issues
Valero	Benicia	80	RBC	2007	Quarterly		C	Hamilton SF-DoDs, Winter Island	SAR approved	Ongoing		8/1 to 11/30	FWS/delta smelt NOAA/steelhead/salmon	Consultation allows for year round work. JBE. Dredging in Sept 2010.

PROJECT NAME	CITY/ LOCALE	EPISODE 2011 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
ADR	Vallejo	0.5	RBC	2010	Annual	Western Dock	C	Knockdown	Tier One	8/10	8/12	8/1 - 10/15	DFG/FWS/NOAA/ longfin/salmon/steelhead/ least tern	complete, will be amending permits for additional knockdowns
Alameda Point Channel (City of Alameda)	Alameda	196	RBC	2007	3-4 yrs	D	C	SF-11 & SFDODS	SAR approved	10/15	11/15	8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	10 day extension granted
BAE	San Francisco	181.4	RBC	2010	2-3 years	D	C	SF-11/SFDODS	SAR approved	8/10		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
Benicia	Benicia	22	RBC	2009	2 yrs	Salt River	C	SF-9	Tier 1	9/1		8/1 - 11/30	DFG/FWS/NOAA/ Delta smelt/salmon/steelhead/ least tern	Complete
Chevron Long Wharf	Richmond	150	RBC	2010	Annual	D	C	SF-11	SAR approved	9/1		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
Chevron Rod & Gun Club (Castro Cove)	Richmond	46	RBC	1980	30 yrs	Dixon	C	Castro Cove (onsite)	SAR approved	8/1		7/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete
ConocoPhillips	Rodeo	45	RBC	2010	Annual	M	C	SF-8, SF-9 Hamilton	SAR approved	9/1		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	complete
Emeryville Marina	Emeryville	0.3	BC	2008		Salt River	C	SF-11	Tier 1 approved			8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Two high spots candidate for a knockdown, No episode requested
Levin Terminal	Richmond	1	RBC	2010	Annual		C	Upland	Tier 1 approved	11/15	11/30	6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete
Main Ship Channel (Corps)	San Francisco	500	RB	2010	Annual	Essayons	H	SF-8 SF-17	Tier One Approved	May			None	complete
Marin Yacht Club	San Rafael	12	RBC	2007	6 yrs	Salt River	C	SF-10	SAR approved	10/1		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	7 day extension granted
Marina Bay Yacht Harbor Richmond Bay LLC	Richmond	74	RBC	1980's		Salt River	C	SF-11/SF-DODS	SAR approved	8/27		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	complete
Marina Vista Canal	San Rafael	12	RBC	2005	6 yrs	Salt River	C	SF-10/SF-11/WI	SAR approved	7/1		6/1 - 11/30	DFG/NOAA/ salmon/steelhead/longfin	complete

PROJECT NAME	CITY/ LOCALE	EPISODE 2011 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Napa Yacht Club HOA	Napa	76	RBC	1998	20 yrs	Western Dock	C	SF-9	SAR approved	8/1		8/1 - 10/15	DFG/NOAA/longfin/delta smelt/salmon/steelhead	suspended for the season
Oakland Inner and Outer Harbors (Corps)	Oakland	1,200	RB	2010	Annual	M	C	Montezuma. SF- 11	SAR approved	8/1	February	8/1 - 11/30	DFG/NOAA/FWS/herring/lo ngfin/salmon/steelhead/lea st tern	Underway Extension through February 29, 2012
Port of Oakland Berths	Oakland	133.7	RBC	2010	Annual	D	C	SF-11	SAR approved	8/1		8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Complete
Pinole Shoal Channel (Corps)	Pinole	74	RB	2010	Annual	Essayons		SF-10	Tier One Approved	7/25		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete
Point San Pablo Yacht Harbor	Point Pinole	20	RBC	2006	5 years	Dixon	C	Castro Cove	SAR Approved	9/1		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete, but dredged less than anticipated due to debris in sediment
Port of SF, Berth 27	San Francisco	109	RB	2010	Annual	D	C	SF-11/DODS	SAR approved	8/20		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	complete
Port of SF, Berth 35	San Francisco	72	RBC	2010	Annual	D	C	SFDODS	SAP approved	10/15		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	15 day extension granted
Port Sonoma	Petaluma	50	C	2009	Annual	Cal Dredging	H	Carneros River Ranch	SAR approved	10/31		6/1 - 1/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Delayed project until December. Seeking a DFG ITP for longfin, ITP application complete.
Redwood City Harbor Channel Maintenance Dredging (Corps)	Redwood City	362	RBC	2010	2 yrs	Vortex	C	SF-11	SAR approved	9/1	11/30	6/1 - 11/30	USFWS/Clapper Rail	31 Day extension granted
Richmond Inner Harbor (Corps)	Richmond	250	RB	2010	Annual	Re Staite	C	SF-DODS	Tier 1	7/15	10/31	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Underway - Requesting an extension untile December
Richmond Outer Harbor (Corps)	Richmond	204	RB	2010	Annual	Essayons	H	SF-11	Tier 1; additional boundary maps?	7/25		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete

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San Rafael Canal (Corps)	San Rafael	40	RB	2003	7-10 years		C	S-10	SAR approved	10/15		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	15 day extension granted
San Rafael Yacht Harbor	San Rafael	1.8	RBC		Annual	Self	C	SF-10	Continuation of episode	6/1		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	complete
Sausalito Yacht Harbor	Sausalito	93	RBC			Salt River	C	SF-11/ Upland	SAR approved	8/29		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	NOAA Fisheries ok; No wavier from DFG, stop work on November 30th
Suisun Bay Channel/ New York Slough (Corps)	Suisun	169	RB	2008	Annual	Essayons	H	SF-16	Tier One Approved	8/1		8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	complete - 11/20/11 Knockdown Request - 1000 cy, knockdown complete
Sunnyvale Boat Launch Ramp	Sunnyvale	0.06	BC	2010	Annual		Ex	Upland	NA	July		6/1 - 11/30	DFG/NOAA/ longfin/salmon/steelhead	complete
Valero	Carquinez	80 Annual	RBC	2/11	Annual	D	C	SF-9/SF-11/ WI/SFDODS	SAR approved				DFG/NOAA/herring/ longfin/salmon/steelhead	4 events so far this year
Vallejo Ferry	Vallejo	10	RBC	2008	3 years	D	C	SF-9	SAR Approved	August		8/1 - 10/15	DFG/NOAA/longfin/ salmon/steelhead	Complete

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America's Cup Pier 9S, 14, Brannan St. OWB (2012 - S of 30/32)	San Francisco	33.5	RBC	0	2 episodes 1- 2012, 1- 2013	D	C	MWRP	SAR approved	November	November	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Piers 32-36 only. Per Oriana - DOP being developed, debris issues being sorted for Pier 36 as it is causing problems at MWRP
Alameda Ferry - WETA	Alameda	5	RBC	2012		D	C	WI	SAR Approved	end of October	November	8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	ACE ok'd in house DOP; sediment going to the quarry
Amports - DONE	Benicia	29	RBC	2010		D	C	WI	Tier One approved	2/27	3/1	8/1 - 11/30	DFG/FWS/NOAA/Delta smelt/ longfin/salmon/steelhead	Informal consultation completed; 2012 dredging complete
Benicia Marina	Benicia	15	RBC	2011	Annual		C	SF-9	SAR approved	8/29		8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	ACE ok'd in house DOP
Brickyard Cove Marina	Richmond								Tier One Approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	2013
Chevron Long Wharf	Richmond	150	BC	2011	Annual	D	C	SFDODS MWRP	SAR approved	end of October		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	DMMO 8/22 - SAR Approved, redo PAH (tissue); DOP changed for outflow; deepening project for 2013
Clipper Yacht Harbor, Basin One	Sausalito		RBC	2007	3-4 yrs		C	SF-11				6/1 - 10/31	DFG/NOAA/herring/ longfin/salmon/steelhead/ coho	ACE permit expired, BCDC permit; Contaminant issues; PN to be issued soon
Phillips 66 (aka Conoco Phillips)	Rodeo	17	RBC	2011	Annual	D	C	SF-8, SF-9, upland (Aramburu)	Tier 1 approved	11/1	11/2	6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Has good sand, may take some to Aramburu Preserve in Richardson Bay
Cove Investment	Richmond	4	Application submitted						SAP submitted			6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	conditional approval, confirmatory chemisty, 2013
Emeryville Marina Entrance Channel	Emeryville	44		2008			C	SF-11	SAR approved			8/1-11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Entrance Channel, NOAA current monitoring instruments placed nearby; may need ACE permit; silt curtain to be used, eelgrass survey received; new BCDC 10 yr permit on Oct 18, has WQC, pre-dredge survey complete, DOP in the works
Levin Richmond	Richmond	6	RB	2011				Upland, landfill only	SAR approved	November		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Advanced maintenance dredging; 45' deep trench along warf face; superfund activity nearby
Lowrie Yacht Harbor	San Rafael Canal	26.8	RBC	2004	6 yrs	SRC	E	SF-10	SAR approved/Tier1 approved	8/7		6/1 - 11/30	DFG/NOAA/longfin/herring / salmon/steelhead	DOP in 4/30/12, Episode Approved 5/18/12, Underway, work suspended 10/1; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
Main Ship Channel (Corps)	San Francisco	500	RB	2011	Annual	Essayons	H	SF-8 SF-17					None	Delayed due to ship repair, begin end of June?
Martinez Marina	Martinez	25	C	2008			H	upland	SAR approved	September		30-Nov	DFG/FWS/NMFS/Delta smelt/salmon/steelhead	Has this project been appended to the Corps' programmatic re: Delta smelt; east of Carquinez, referred to Jim Starr, Crystal Spurr F&G, FWS Bay Delta Office; Seeking incidental take permit, funding limiting volume: SMHM issues. may get an extension
Napa Valley Marina	Napa	92	application received	2009?			suction	upland/benefi cial reuse		November	2012-2013	Nov 1- Dec 31	steelhead/salmon/green sturgeon/delta and longfin smelt	Late submittal; disposal ponds on-site, own dredge equipment; 1600 permit being processed; check BO
Oakland Inner and Outer Harbors (Corps)	Oakland	800	RB	2011	Annual	M	C	SFDODS / beneficial reuse	Tier One for Ocean Approved	1-Oct		8/1 - 11/30	DFG/FWS/NOAA/herring / longfin/salmon/steelhead / least tern	Bids are in; SFDODS is ACE preferred spot, EPA doesn'twant SFDODS, prefers MWRP and contacting NOAA and F&G; will need extension
Paradise Cay Yacht Club	Tiburon	20	BC	2009		SRC	E	SF-11	Tier One approved			6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Underway, work suspended Sept and restarted in Nov
Pier 39 DONE	San Francisco	100/63	BC	2008	4 years	SRC	C	SF- 11/SFDODS/ Berth 10	SAR approved	6/25		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Work completed; waiting for post-dredge survey

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Pinole Shoal DONE	Pinole	120	B	2011	Annual	Essayons	H	SF-10	Tier One approved	August	August	6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Completed but may not have been cleared to design depth
Pittsburg Marina - Lowy Basin elbow	Pittsburg	10	No BCDC	2006	6 years		C	WI	SAR Approved	September		8/1-11/30	NMFS/CDFG/FWS/salmon/ steelhead/delta smelt	Streambed Alteration Agreement is now required for work from Chippis Island - eastward; Sago palm weed survey (WRA), may require mitigation NMFS; DOP approved by USACE 9/18/12
Plains Terminal	Martinez	6		2000		D	C	WI	SAR Approved	8/1		8/1-11/30	DFG/FWS/NMFS/Delta smelt/salmon/steelhead	BCDC, RWQCB have authorized permits, ACE had DOP
Port of Oakland Berths 22, 23, 25-26, 30, 32, 35 37, 55-59, 60-63	Oakland	140	BC	2011	Annual	D	C	Montezuma/ WI	Tier One/ SAR Approved	8/6		8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Episode underway, suspended twice to date, nealry done
Port of SF, Berth 35	San Francisco	119	RBC	2011	Annual	D	C	SFDODS/MW RP?	SAR approved	November		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Doing in conjunction with Pier 80; PAH; concurrent to Chevron, November
Port of SF, Piers 80 A and D	San Francisco	84	RBC	2009?		D	C	upland/ SF11	SAR approved	October	October	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
Redwood City (Corps)	Redwood City	29	RB	2011		ACE	knockdown			June				knockdown underway on June 15th, ACE emergency; F&G Region 3, needs 1600?
Richardson Bay Marina	Sausalito	14			3 years	SRC	C	SF-11	SAR approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Eelgrass beds nearby, will use silt curtain; needs SLC lease; may give sediment to Aramburu; PN out; No extension possible
Richmond Inner Harbor (Corps)	Richmond	75	RB	2010	Annual	D is subbing for Ari State	C	SFDODS	SAR, only Comp 2, approved/new SAP approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Bids in, =requesting ocean concurrence, Dutra may ask for MWRP and extension
Richmond Outer Harbor (Corps)	Richmond	250	RB	2010	Annual	Essayons	H	SF-11/SF-10	SAR approved	6/15		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
City of SF Marina West Basin	San Francisco	73	RBC	2009	2-3 years	D	C	Upland/SF- 11/Aramburu Is.	SAR approved	October	November	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	work underway
San Rafael Canal Homeowners Aqua Vista	San Rafael	2		2004		SRC	E	SF-10	Tier One approved			June 1-Nov 30	DFG/NOAA/longfin smelt/salmon/steelhead	Incomplete applications/PN notice; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
San Rafael Canal Homeowners Mooring Rd	San Rafael	7	application received	2004	4-5 yrs	SRC	E	SF-10	Tier One approved/ SAP approved	November	November	June 1-Nov 30	DFG/NOAA/longfin smelt/salmon/steelhead	Permit pending; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
San Rafael Canal Homeowners Newport Boating Association	San Rafael	7		2003		SR	C	SF-10	Tier One approved	November	November	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Work underway; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
San Rafael Canal Homeowners Porto Bello HOA	San Rafael	7		2005		SR	C	SF-10	Tier One approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Can use ACE test results to obtain Tier 1; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?

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San Rafael Canal Homeowners Royal Court HOA	San Rafael	7		2005		SR	C	SF-10	Tier One approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Can use ACE test results to obtain Tier 1; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
Sausalito Yacht Harbor	Sausalito	38	RBC	2011		Salt River	C	SF-11/ Upland	SAR approved	7/1	10/19	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Completed Oct 19
Suisun Bay Channel/ New York Slough (Corros)	Suisun	119	RB	2011	Annual	Yaquina	H	SF-16	Tier One approved	8/1		8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	Complete
Tesoro	Carquinez	5		2005	7 years	D	C	WI	SAR approved	10/15		8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	First year, ACE, got LOP; next year will apply for 10 yr permit; obtained SLC lease; BCDC Episode approval sent
USCG Yerba Buena Island	San Francisco	22		2004			C	SF-11, DODS, upland	SAR /Tier 1 approved	11/15	11/30	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead/ eelgrass	eelgrass and ulva issues, bids recv end of August, USACE needs signed copy, DOP approved
Valero DONE	Carquinez	80			Annual (4-5 times/yr)	Dutra	C	Montezuma, SF-9					DFG/NOAA/herring/ longfin/salmon/steelhead	First 2012 event complete w/ placement at Montezuma
Vallejo Marina North and South Basins	Vallejo	79		7/4		SRC	C	SF-9	SAR approved	9/12	11/12	8/1 -10/15	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead	Underway, Oct 15th work window closes, needs extension, can only dredge weekdays, 7-19; see notes below
West PAC Energy	Pittsburg	170					C	WI/ Montezuma	SAR approved	2013	2013	8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	Mainly sand, may take some to Antioch Dunes (Sacramento District ACE); May need extension from NOAA

vallejo marina, north and south basins. work began Oct 2nd and work window closes Oct 15th due to steelhead. Asking for an extension through Jan 2013, have 65,000 cy to dredge and can move 800 cy/day. Steelhead is a NMFS species and will need their opinion (Gary Stern). Delta smelt - Maral Kasparian has the ACE request referring to programmatic BO for delta smelt and has laready amended the project for extension to Nov 30, can extend the window to Jan 2013. Longfin smelt - Craig Weightman is ok with Jan 2013 extension for longfin but needs SAA (1600 perrrmit) asap. City of Vallejo has an SAA for the work at Baylink Ferry.

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America's Cup- Piers 30/32	San Francisco	33.5	RBC	0	2 episodes 1- 2012, 1- 2013	D	C	MWRP	SAR approved	November	November	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Piers 32-36 only. Complete
Benicia Marina	Benicia	15	RBC	2011	Annual		C	SF-9	SAR approved	8/29		8/1 - 11/30	DFG/FWS/NOAA/h erring/ longfin/salmon/ste elhead/ least tern	Complete
Chevron Long Wharf	Richmond	150	BC	2012	Annual	D	C	SFDODS MWRP 80%; SF-11 20%	SAR approved	mid October	November	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Complete
Clipper Yacht Harbor, Basin Three	Sausalito	1,184 cy + 356 cy soil	RBC			SRC, West Environmenta l	C	Berth 10, upland landfill	RWQCB required and approved	11/11	11/30	6/1 - 10/31	DFG/NOAA/herring /longfin/salmon/ste elhead/ coho	Removing copper contaminated sediment and soil; have work window extension until Nov 30. * received 6 day ext for removal of additional 200 cy in Dec Complete
Phillips 66 (aka Conoco Phillips)	Rodeo (San Francisco Refinery)	8.2	RBC	2012	Annual	D	C	SF-8, SF-9, upland	Tier 1 approved	10/15	10/31	8/1 - 11/30	DFW/NOAA/FWS/I ongfin/delta smelt/ salmon/steelhead	Has good sand, may take some to Aramburu Preserve in Richardson Bay Complete
Main Ship Channel (Corps)	San Francisco	500	RB	2011	Annual	Essayons	H	SF-8 SF-17					None	Out of Bay Complete
Oakland Inner and Outer Harbors (Corps)	Oakland	700	RB	2012	Annual	D?	C	MWRP/SF- 11/SFDODS / beneficial reuse	Tier One for Ocean Approved			8/1 - 11/30	DFG/FWS/NOAA /herring/ longfin/salmon/st eelhead/ least tern	In progress? Based on Sept 9 CN Complete
Pinole Shoal	Pinole	101	B	2012	Annual	D	C	SF-10/SF-9		June	June	6/1 - 11/30	DFG/NOAA/longfin /salmon/steelhead	Based on WDR April 15, 2013 Complete
Port of Oakland Berths 24 - 26, 30, 32, 35-37, 55 - 59	Oakland	150	BC	2012	Annual	D	C	SF-DODS	Tier One for all but Berths 25-26	8/10	11/30	8/1 - 11/30	DFW/FWS/NOAA/h erring/ longfin/salmon/ste elhead	all berths approved for SFDODS, In-Bay (SF-11) and Beneficial Reuse at Cullinan and Montezuma. Berths 60-63 not approved for In-Bay due to elevated PCBs. Complete
Port of SF, Berth 35	San Francisco	79	RBC	2012	Annual	D	C	SFDODS	SAR approved, SUAD SF- DODS	10/20	11/30	6/1 - 11/30	DFW/NOAA/herrin g/ longfin/salmon/ste elhead	elevated PAH, some clean fine grain sediment Complete
Richardson Bay Marina	Sausalito	14		1990		SRC	C	SF-11	SAR Approved	August	mid-late November	6/1-10/30	NMFS/DFW/herrin g, longfin, least tern/eelgrass, salmonids	Eelgrass beds nearby, silt curtains deployed. Received work window extension to Nov 30 (Coho salmon) from NMFS/CDFW Complete
Richmond Inner Harbor (Corps)	Richmond	150	RB	2012	Annual	D	C	SFDODS		9/15	October	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Based on WDR July 29, 2013 Complete
Richmond Outer Harbor (Corps)	Richmond	156	RB	2012	Annual	D	C	SF-11/SF-10	SAR approved	June	June	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Based on WDR April 15, 2013 Complete
City of SF Marina West Basin	San Francisco	13.4	RBC	2012	2-3 years	D	C	Upland	SAR approved	November	November	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Sand from sand trap taken to SR Quarry for reuse Complete
San Rafael Canal Homeowners Mooring Rd	San Rafael	7	application received	2004	4-5 yrs	SRC	E	SF-10	Tier One approved/ SAP approved	November	November	June 1-Nov 30	DFG/NOAA/longfin smelt/salmon/steel head	Permitted to dredge in 2012 - due to leakys are dredging end of season 2013 - NOT YET STARTED (11/19)
Suisun Bay Channel/ New York Slough (Corps)	Suisun	156	RB	2011	Annual	Yaquina	H	SF-16/SF-9	Tier One approved	August	September	8/1 - 11/30	DFG/FWS/NOAA/lo ngfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	Complete
US Coast Guard Station Vallejo	Vallejo	11		2008	4-5 yrs	SRC	C	SF-9		September	October	8/1-10/15	NOAA/DFW/delta smelt/steelhead	Completed within work window
Valero	Carquinez	80	RBC	2012	Annual (4-5 times/yr)	Dutra	C	Montezuma, SF-9					DFG/NOAA/herring /longfin/salmon/ste elhead	Complete

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Aeolian Yacht Club	Alameda	M85-63	2007	18	RB		C	SF-11				8/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/least tern	Some cord grass in basin, mercury;
Alameda Lagoons	Alameda	12,000	C (not in BCDC jurisdiction)	new			C	Upland at Naval Airstation Alameda					No EFH or ESA	
BAE Systems/SF Drydock - DD2	San Francisco	2011	112	C	2-3 years		C	SF-11/Montezuma	SAP Approved	July		3/1 to 11/30	DFG/herring	
Benicia Marina	Benicia	15	RBC	2011	Annual		C	SF-9				8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
Brickyard Cove Marina	Richmond											6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	
BP Terminal	Richmond	11.2	BC	2013	Annual		C	SF-11	SAP Approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	
Chevron Long Wharf	Richmond	150	BC	2012	Annual		C	SFDODS MWRP 80%; SF-11 20%				6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	
Corinthian Yacht Club	Tiburon	22	BC	2008	4 years		C	SF-11	SAR Approved			6/1-10/31	NOAA/Steelhead/salmon DFG/herring	
JFK Boat Ramp	Napa													
Loch Lomond Marina	San Rafael		2003	15			4-5 years	WD				1/1 to 12/31	NOAA/steelhead/salmon	
Main Ship Channel (Corps)	San Francisco	500	RB	2011	Annual		H	SF-8 SF-17					None	
Mare Island Dry Dock MIDD	Napa River	104		1994			C	SF-9	SAR Under review			8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	
Marin Yacht Club	San Rafael	7		2011	every 3 years		c		SAPunder review					
Marina Vista HOA	San Rafael	6.5		2010	every 4 years		c		SAPunder review					
Napa Flood Control	Napa River													
Napa Valley Marina	Napa	11.6	RBC	2009	Annual		suction	upland/beneficial reuse				Aug 1- Oct 15	DFW/NOAA/FWS/steelhead/ salmon/delta/ longfin smelt and clapper rail	disposal ponds on-site, own dredge equipment; 1600 permit processed; check BO
Oakland Inner and Outer Harbors (Corps)	Oakland	700	RB	2012	Annual		C	MWRP/SF-11/SFDODS / beneficial reuse				8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
Paradise Cay Homeowners	Tiburon	26.6	RBC	2010	every 4 years		C	SF-11	SAR Approved	June		6/1-11/30	DFG/herring, NOAA/steelhead/salmon	Episdoe Approval 5/06/14

		EPISODE VOLUME (Range in 1000 CYS)	PERMITS	LAST	FREQUENCY	CONTRACTOR		DISPOSAL	DMMO	EST. START	EST. FINISH	WORK	CONSULT AGENCIES/ SPECIES	
PROJECT NAME	CITY/ LOCALE		OBTAINED	DREDGED			EQUIPMENT	SITE	STATUS	DATE	DATE	WINDOW		COMMENTS
Phillips 66 (aka Conoco Phillips)	Rodeo (San Francisco Refinery)	8.2	RBC	2012	Annual		C	SF-8, SF-9, upland				8/1 - 11/30	DFW/NOAA/FWS/longfin/delta smelt/salmon/steelhead	
Phillips 66 (aka Conoco Phillips)	Richmond						C					8/1 - 11/30	DFW/NOAA/FWS/longfin/delta smelt/salmon/steelhead	
Pinole Shoal	Pinole	101	B	2012	Annual		C	SF-10/SF-9				6/1 - 11/30	DFG/NOAA/longfin/salmon/steelhead	
Port of Oakland Berths 22,25,26,57,58,59	Oakland	15	B (C pending)	2013	Annual		C	SF-11, SF-DODS, Upland	Tier One Approved			8/1 - 11/30	DFW/FWS/NOAA/herring/longfin/salmon/steelhead	
Port of Oakland Berths 23, 30, 32, 35, 37, 55 and 56	Oakland	42.7	B (C pending)	2012	Annual		C	SF-11, SF-DODS, Upland	SAP Approved			8/1 - 11/30	DFW/FWS/NOAA/herring/longfin/salmon/steelhead	
Port of Redwood City	Redwood City		(C maintenace dredgin permit expired)											
Port of San Francisco, Berth 27	San Francisco	2008	60(C pending)	RB	2006		D	C				6/1 to 11/30	DFG/herring/NOAA/steelhead/salmon	
Port of San Francisco, Berths 80/92/94/96 Elaine Creek	San Francisco	2008	120 (C pending)	B	2005		D	C	SAP Approved			6/1 to 11/30	NOAA/steelhead/salmon	
Port of SF, Berth 35	San Francisco	62	BC	203	Annual		C	SFDODS				6/1 - 11/30	DFW/NOAA/herring/longfin/salmon/steelhead	
Redwood City (Corps)	Redwood City		RB	2011			knockdown							
Richmond Inner Harbor (Corps)	Richmond	150	RB	2012	Annual		C	SFDODS				6/1 - 11/30	DFG/NOAA/herring/longfin/salmon/steelhead	
Richmond Outer Harbor (Corps)	Richmond	156	RB	2012	Annual		C	SF-11/SF-10				6/1 - 11/30	DFG/NOAA/herring/longfin/salmon/steelhead	
San Rafael Rock Quarry	San Rafael	45	BC	2008	6 years		C	Montezuma, SF-10, SFDODS	SAP Approved			6/1-11/30	NOAA/steelhead/salmon DFG/longfin	
Strawberry Channel/Cove Apts	Mill Valley	2007	7		2006	10 years	SRC	C/H	SAR Approved			6/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/clapper rail	

		EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY	CONTRACTOR		DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	
PROJECT NAME	CITY/ LOCALE						EQUIPMENT						DFG/FWS/NOAA/longfin/delta smelt/salmon / steelhead (depth > 10 ft)	COMMENTS
Suisun Bay Channel/ New York Slough (Corps)	Suisun	156	RB	2011	Annual		H	SF-16/SF-9				8/1 - 11/30		
Sunnyvale Boat Launch Ramp	Sunnyvale	0	RBC	2013	Annual		E	Upland	n/a	5/15	5/18	NA		complete
Tesoro	Carquinez	5		2005	7 years		C	WI				8/1 - 11/30	DFG/FWS/NOAA/longfin/delta smelt/salmon / steelhead (depth > 10 ft)	
Valero	Carquinez	80	RBC	2012	Annual (4-5 times/yr)		C	Montezuma, SF-9					DFG/NOAA/herring/longfin/salmon/steelhead	
Vallejo Marina North and South Basins	Vallejo	79		7/4		SRC	C	SF-9				8/1 -10/15	DFG/FWS/NOAA/longfin/delta smelt/salmon / steelhead	
Vallejo Yacht Club	Vallejo	2008	16.6	C	2005		WD	C				8/1 to 10/31	FWS/Delta smelt NOAA/steelhead/salmon	Requires a Streambed Alteration permit.
West PAC Energy	Pittsburg	170					C	WI/ Montezuma				8/1 - 11/30	DFG/FWS/NOAA/longfin/delta smelt/salmon / steelhead (depth > 10 ft)	Mainly sand, may take some to Antioch Dunes (Sacramento District ACE)
WETA SF Bay	Alameda	47.1	(C pending)	new				upland/dods						

PROJECT NAME	CITY/ LOCALE	EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Aeolian Yacht Club	Alameda	20	RBC	2010		Salt River	C	SF-11, SFDODS	SAR Approved	August		8/1-11/30	NOAA/steelhead/salmon DFW/herring USFWS/least tern	Some eelgrass near basin, mercury; SUAD in-Bay for upper material and NUAD in-Bay for lower. All material SUAD SF-DODS
Benicia Marina	Benicia	15	RBC	2013	Annual	Salt River	C	SF-9				8/1 - 11/30	DFW/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
BP Terminal	Richmond	11.2	BC	2013	Annual		C	SF-11				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Brisbane Marina	Brisbane	184		2001			C	SF-11, SF-DODS	SAR Under review			6/1-11/30	DFW/NOAA/herring/longfin /salmon/steelhead	
Chevron Long Wharf	Richmond	150	RBC	2014	Annual		C	SFDODS MWRP 80%; SF-11 20%				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Clipper Yacht Harbor, Basin One	Sausalito	60	RBC	2007	3-4 years		C	SF-11, SF-DODS	SAP Approved			6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead/coho	ACE permit expired; BCDC permti; Contamination issues; PN to be issued soon
Corinthian Yacht Club	Tiburon	22	BC	2008	4 years	Salt River	C	SF-11	SAR Approved			6/1-10/31	NOAA/Steelhead/salmon DFW/herring	
Emery Cove	Emeryville	72		2008				SF-11	SAP under review			8/1-11/30	DFW/NOAA/USFWS/herring / longfin/salmon/steelhead/ least tern	All permits expired
Ferro Property	San Rafael		RBC	1980s			C	SF-11				6/1 - 11/30	NMFS/CDFW/herring /longfin/salmon/steel head	Currently in process of adding neighbor's dock into proposed project
Greenbrae Marina - Larkspur Marina	Larkspur	48	RC	2011	4 years		C	SF-11, SF-10, upland	SAP approved	August	November	6/1-10/31	NOAA/steelhead/salmon/coho; DFW herring/Clapper Rail/Salt Marsh Harvest Mouse	Dredging - must stay outside of 250 feet from marsch until September; mercury issues; requesting extension to work until Nov. 30
IMTT	Richmond	6	C			Manson	C	upland (MWRP)	SAR Approved		November	6/1 - 11/30	CDFW/NOAA/herring/ longfin/salmon/steel head	Using environmental bucket to minimize suspended sediment impact on EFH; contaminated area
JFK Boat Ramp	Napa													
Kiewit Pacific	Vallejo	13		2001			C	SF-9, Cullinan	SAP Approved			8/1-10/15	CDFW/USFWS/Delta smelt	Need all permits
Larkspur Ferry Terminal	Larkspur	602 for 2015; 602 for 2019	C	2011			C	SF-9/SF-10/SF-11/SF-DODS/MWRP/CR/WI	SAP approved; SAR under review	September	November	6/30-10/30, approved extension from NMFS through 11/30; after 8/1 within 250ft of marsh adjacent to Terminal (clapper rail window)	NOAA/steelhead/salmon/coho; CDFW/USFWS/herring/C lapper Rail/Salt Marsh Harvest Mouse	ACE permit expires May 1, 2020; RB permit renewal pending; BCDC permit renewal pending
Loch Lomond Marina	San Rafael	100	RBC	2003		Salt River	4-5 years	SF-11, SFDODS, Upland	SAR Approved			6/1 - 11/30	NOAA/steelhead/salmon	
Main Ship Channel (Corps)	San Francisco	500	RB	2014	Annual		H	SF-8					None	
								SF-17						

PROJECT NAME	CITY/ LOCALE	EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Mare Island Dry Dock MIDD	Napa River	70		2014			C	SF-9	Tier One Under Review			8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	
Marin Yacht Club	San Rafael	29		2011	every 3 years	Salt River	c	SF-10	Tier I Approved			6/1-11/30	DFW/NOAA/herring/ longfin/salmon/steelhead/c oho	
Marina Vista HOA	San Rafael	6.5		2010	every 4 years		c		SAPunder review					
Oakland Inner and Outer Harbors (Corps)	Oakland	700	RB	2012	Annual		C	MWRP/beneficial reuse				8/1 - 11/30	DFW/FWS/NOAA/herring/ / longfin/salmon/steelhead/ least tern	
Paradise Cay Yatch Club	Tiburon	26.6	RBC	2010	every 4 years	Salt River	C	SF-11	SAR Approved	June		6/1-11/30	DFW/herring, NOAA/steelhead/salmon	Episdoe Approval 5/06/14 based on Tier 1
Phillips 66 (aka Conoco Phillips)	Rodeo (San Francisco Refinery)	15	RBC	2014	Annual		C	SF-8, SF-9, upland				8/1 - 11/30	DFW/NOAA/FWS/longfin/d elta smelt/ salmon/steelhead	
Pinole Shoal	Pinole	150		2014	Annual		C	SF-10/SF-9				6/1 - 11/30	DFW/NOAA/longfin/ salmon/steelhead	
Port of Oakland Berths	Oakland	100	RBC	2013	Annual		C	SF-11, SF-DODS, Upland	Tier One Approved			8/1 - 11/30	DFW/FWS/NOAA/herring/ longfin/salmon/steelhead	
Port of Redwood City	Redwood City			2014			C	SF-DODS, Upland				6/1 to 11/30	CDFW/NOAA/herring/ /longfin	
Port of San Francisco, Berth 27	San Francisco		RB	2014	Annual		C					6/1 to 11/30	DFW/herring NOAA/steelhead/salmon	
Port of SF, Berth 35	San Francisco	62	BC	2014	Annual		C	SFDODS				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Redwood City (Corps)	Redwood City	350		2014			C							
Richmond Inner Harbor (Corps)	Richmond	250		2014	Annual		C	BRU/SFDODS				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Richmond Outer Harbor (Corps)	Richmond	250		2014	Annual		C	SF-11/SF-10				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
San Rafael Rock Quarry	San Rafael	45	BC	2008	6 years		C	BRU/ SFDODS	SAR Approved			6/1-11/30	NOAA/steelhead/salmon DFW/longfin	
Strawberry Channel/Cove Apts	Mill Valley	7	C	2014	10 years	Salt River	C	SF-11/SF-10	SAR approved			6/1-11/30	NOAA/steelhead/salmon CDFW/herring USFWS/clapper rail	Amending permit to include 3 new docks to dredge in 2015
Suisun Bay Channel/New York Slough (Corps)	Suisun	150		2014	Annual		H	SF-16/SF-9				8/1 - 11/30	DFW/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	

PROJECT NAME	CITY/ LOCALE	EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Sunnyvale Boat Launch Ramp	Sunnyvale	0	RBC	2014	Annual		E	Upland	n/a	5/15	5/18	NA		
Valero	Carquinez	80	RBC	2014	Annual (4-5 times/year)		C	MWRP, SF-9	SAP Approved				CDFW/NOAA/longfin/sal mon/steelhead	
Vallejo Ferry	Vallejo	7	C	2011	3 years		C	SF-9	SAP Approved	August		8/1-10/15	CDFW/NOAA/herring/lon gfin/salmon/steelhead	

To: Allan Ota[Ota.Allan@epa.gov]; Anniken Lyden[Annikenl@bccdc.ca.gov]; Beth Christian[echristian@waterboards.ca.gov]; Brenda Goeden[brendag@bccdc.ca.gov]; Debra A O'Leary[Debra.A.O'Leary@usace.army.mil]; Jenny Jacox[Jennyj@bccdc.ca.gov]; Mark R. D'Avignon[Mark.R.D'Avignon@usace.army.mil]; Melissa Scianni[Scianni.Melissa@epa.gov]; Pascale Soumoy[pascales@bccdc.ca.gov]; Rob J. Lawrence[Robert.J.Lawrence@usace.army.mil]; Rosa Schneider[rosas@bccdc.ca.gov]; Shelah Sweatt[Shelah.Sweatt@usace.army.mil]
From: Ross, Brian
Sent: Thur 4/24/2014 5:56:27 PM
Subject: EPA evaluation of Phillips 66 z-layer results (DDTs)
[P66 TBP Assessment.pdf](#)
[P66 Sediment Chemical Analysis Results.pdf](#)

Hi Rob et al.,

This memo presents EPA's evaluation of and recommendations concerning the z-layer results for Phillips 66's berth in the Port of Richmond. These comments are for the DMMO agencies to consider in reaching a DMMO position/recommendation, which will then be forwarded to NMFS in accordance with the LTMS programmatic agreement under the EFH provisions of the MSFCMA. EPA took the lead on the initial evaluation to ensure that there are no inadvertent inconsistencies with ongoing risk assessment and remediation work at the adjacent United Heckathorn Superfund site.

BACKGROUND

The 18,355 cy of sediments proposed to be dredged in 2014 for maintenance of the Phillips 66 Richmond Marine Terminal received full Tier III testing (including bioaccumulation testing), and were determined to be suitable for unconfined aquatic disposal at SF-DODS. However, DMMO also required analysis of a composite of the z-layer samples (representing the surface that will become exposed after dredging), because a nearby sample taken recently by USACE in the federal channel identified a very high concentration of DDT compounds at z-layer depths. The sampling program confirmed that the very high DDT concentration nearby in the federal channel does NOT extend into the Phillips 66 berth sediment at depths that will be disturbed or exposed by the proposed maintenance dredging. However, DDTs in the Phillips 66 z-layer composite were somewhat higher than the overlying sediment that would be dredged (61 ppb compared to 16.1 ppb, respectively). The z-layer composite also slightly exceeded the 50 ppb "bioaccumulation trigger level" (BT) established in the LTMS programmatic EFH consultation agreement. Analysis of the 9 individual core z-layer samples showed that only two had DDT concentrations above the BT: one (core #9) at 55.6 ppb and one (core 8) at 178 ppb. The z-layer area represented by core #8 clearly accounts for the great majority of the DDT found in the overall z-layer composite. On this basis, per the EFH agreement, DMMO has undertaken additional evaluation of the Phillips 66 z-layer material represented by core #8 in order to

recommend whether any management actions may be necessary.

FURTHER DMMO EVALUATION

Standard bioaccumulation testing was conducted on the Phillips 66 sediment that is proposed to be dredged. However, only sediment chemistry – NOT bioaccumulation testing - was conducted on the z-layer composite and on the z-layer samples from the individual cores. Therefore DMMO directed that a Theoretical Bioaccumulation Potential (TBP) calculation be performed based on the core #8 DDT results (178 ppb) and the z-layer composite results (61 ppb), but corrected for steady state and using the site-specific Biota-Sediment Accumulation Factor (BSAF) derived from the bioaccumulation testing of the overlying sediments (as opposed to using a generic BSAF from the literature). Such a site-specific TBP calculation should best represent actual conditions of bioavailability in the particular sediments at this particular location, and should therefore be the best available basis for comparison against Toxicity Reference Values (TRVs) or other benchmarks of potential risk.

The results of the site-specific TBP calculation are presented in the attached letter report from Pacific EcoRisk. The predicted tissue concentrations following long term (steady state) exposure to core #8 z-layer sediments are approximately an order of magnitude higher than the predicted concentrations following long term exposure to the z-layer composite representing the entire berth. This is reasonable, since the core #8 z-layer sediment DDT (at 178 ppb) is itself much higher than the berth-wide z-layer DDT (at 61 ppb). Nevertheless, the predicted tissue concentrations following long term exposure to core #8 z-layer DDT are still one to four orders of magnitude below available TRVs.

Of course, fish in the area would not be expected to be exposed (via feeding) to the predicted steady state tissue concentrations for core #8 for two primary reasons. First, core #8 represents only a fairly small portion of the Phillips 66 berth. From a fish habitat standpoint, only a fairly small proportion of a mobile species' foraging area would occur in the immediate vicinity of core #8. A better estimate of fish foraging exposure is given by the predicted tissue concentrations resulting from the berth-wide z-layer composite, which are an order of magnitude lower. Second, sediment continuously accretes in Richmond Inner Harbor, including the Phillips 66 berth. As indicated by the relatively low (16.1 ppb) DDT concentration in the overlying sediments to be dredged this episode, newly-accreted material in the future is likely also to have lower DDT concentrations than the z-layer. Thus, exposure of fish forage species and therefore fish to even the DDT concentration in the z-layer composite is expected to rapidly diminish in direct relation to the rate of accretion of sediments with lower DDT concentrations.

Finally, the United Heckathorn Superfund site is just a few hundred yards from the Phillips 66 Richmond Marine Terminal. The original Superfund sediment cleanup target for the site was 590 ppb total DDTs, and the DDT in the Phillips 66 z-layer composite is approximately an order of magnitude below that Superfund sediment cleanup target. However, EPA's Superfund program is conducting ongoing risk assessment and remediation evaluation at the United Heckathorn site, and it is likely that the clean up target may change in the future. Therefore we recommend that z-layer sampling and analysis continue to be conducted for all dredging projects in upper Richmond Inner Harbor, and evaluated in light of the most current cleanup targets available at that time.

CONCLUSION AND RECOMMENDATION

Calculation of a long term (steady state) TBP for the worst case sub-area of the Phillips 66 berth, using a site-specific BSAF derived from on-site bioaccumulation testing, indicated that available relevant TRVs would not be exceeded even if fish foraged exclusively in this sub-area (the TBP for berth-wide exposure is an order of magnitude lower still). This area will accrete cleaner sediment quickly, further reducing exposure. For these reasons, at this time we do not believe further evaluation, or other management action, is necessary in this case. However, ongoing EPA Superfund remediation investigations will likely identify a different sediment cleanup target in the future, and we recommend that z-layer sampling and analysis continue to be conducted in the future for all dredging projects in upper Richmond Inner Harbor, and evaluated in light of the most current cleanup targets available at that time.

=====

Brian Ross

Dredging & Sediment Management Team, WTR-8

U.S. Environmental Protection Agency, Region 9

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Note: I cannot receive e-mail attachments greater than 25 MB.

Please contact me in advance to make arrangements to share larger files.

=====

From: Jeffrey Cotsifas [<mailto:cotsifas@pacificecorisk.com>]

Sent: Friday, March 14, 2014 4:27 PM

To: Debra O'Leary

Cc: Elizabeth@Waterboards Christian; Dan Glaze; Uyeda, Valerie J; gabrial.g.munoz@p66.com; Brenda Goeden; Scianni, Melissa

Subject: P66 TBP Calculations

Debra,

As per your request, please find attached the Theoretical Bioaccumulation Potential calculations for the Phillips 66 Richmond Marine Terminal "Z-Layer" sediments. Please let me know if you have any questions.

Regards,

Jeff

Jeffrey Cotsifas

President

Pacific EcoRisk

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Ms. Melissa Scianni
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

October 30, 2013

Dear Ms. Scianni:

On behalf of the Phillips 66 (P66) Richmond Marine Terminal, Pacific Ecorisk (PER) is submitting attached the results of the chemical analyses of the sediments collected in support of the terminal's planned 2014 maintenance dredging episode for your review. Also attached is a map identifying the sediment sample locations.

Based on these results P66 requests USEPA concurrence with the following:

1. The required analysis of bivalve and polychaete bioaccumulation test tissues will be limited to DDTs and PCBs to determine suitability for ocean placement; and
2. The sediment analytical testing program for this planned dredging episode is complete (excepting ongoing tissue analysis).

P66 believes that adequate sediment chemistry characterization has been performed to support a suitability determination for placement at SF-DODS as well as meeting programmatic Essential Fish Habitat (EFH) requirements as they relate to obtaining a dredged materials maintenance dredging permit.

Briefly, the analytical chemistry and toxicity testing results indicated the following:

- The majority of compounds evaluated were similar to or below San Francisco Bay Background levels (SFRWQCB 1998);
- The results of total PCB analysis performed on individual sediment cores indicated that the measured PCB concentrations ranged from 17.52-36.58 $\mu\text{g/kg}$. Most of the sediment cores had PCB concentrations above the San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013) of 17.6 $\mu\text{g/kg}$. Some of the sediment cores had measured PCB concentrations that were above the San Francisco Bay TMDL threshold (San Francisco Bay 99th percentile PCB concentration [SFRWQCB 2013]) of 29.3 $\mu\text{g/kg}$ for placement in San Francisco Bay;
- Similarly, some of the corresponding sediment core Z-layer samples (estimated post-dredge mudline) had PCB concentrations above one or both of these thresholds;

- When the measured PCB concentration for the proposed dredged material at each sample location was compared to the corresponding Z-layer sample, results indicated that the measured PCB concentration for the Z-layer samples were similar to, or lower in concentration, than observed for the proposed dredged material;
- While all measured total DDT concentrations in the proposed dredged material were below the San Francisco Bay Bioaccumulation Trigger Level for DDTs, there were two Z-layer sediments (P66-08-Z and P66-09-Z) with total DDT concentrations above this threshold;
- The P66-09-Z Z-layer sample measured total DDT of 55.6 $\mu\text{g/kg}$ was slightly above the San Francisco Bay Bioaccumulation Trigger Level for total DDTs (50 $\mu\text{g/kg}$); the measured total DDTs in the P66-08-Z sample was 178 $\mu\text{g/kg}$;
- Toxicity was not observed to either amphipods or polychaetes; elutriate testing indicated that the narrative water quality criteria would be met at the SF-DODS or in-Bay placement sites.

As the measured total PCB concentrations for the Z-Layer individual sediment cores were similar to or less than the measured concentrations in the overlying proposed dredged material, the proposed dredging should not result in an increased exposure to total PCBs.

The measured total DDT concentrations for the Z-layer samples were typically higher than that of the proposed dredged material; however, with the exception of the P66-08-Z and P66-09-Z samples, all measured total DDT concentrations were below the San Francisco Bay Bioaccumulation Trigger Level for total DDT.

Based on PER's experience, it was not unexpected to observe sediment total DDT concentrations at this site above what is typical for San Francisco Bay as the P66 Richmond Marine Terminal permitted dredge limits are within 300-500 yards of the United Heckathorn Superfund Site. This site is a continuing source of DDT in the Richmond Inner Harbor sediments. PER understands that while the site was remediated by the US EPA in the late 1990s, follow-up monitoring studies have indicated that measured total DDTs at the site are above the previous onsite remedial action goal of 590 $\mu\text{g/kg}$ dry weight (USEPA 1994). Ongoing studies are being performed by the US EPA to determine an appropriate future remedial approach for the site such that the remedial action goal can be achieved indefinitely.

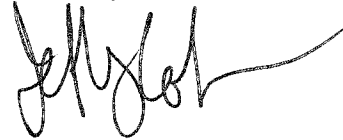
Furthermore, as the measured total DDT concentrations in the P66-08-Z and P66-09-Z samples are below the United Heckathorn Superfund site ecological and human health risk sediment cleanup goals of 590 $\mu\text{g/kg}$ dry weight total DDT (USEPA 1994) and also below the no action screening limit of 420 $\mu\text{g/kg}$ dry weight total DDT ((USEPA 1994) for areas outside the superfund site and within the Richmond Inner Harbor, planned 2014 dredging of sediments at the P66 Richmond Marine Terminal is not expected to impact aquatic resources.

To expedite DMMO processing of P66's dredging permit application, PER requests to have these results reviewed via email and/or phone discussions. After receiving USEPA direction, we will initiate any required tissue analyses.

For convenience, one electronic copy of these results has also been sent to each of the other DMMO participating agency representatives. A full report, in hard copy format, will be submitted upon completion of the remaining analyses.

If you have any questions, please give me a call at (707) 207-7761. I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffrey Cotsifas', with a long horizontal flourish extending to the right.

Jeffrey Cotsifas
President

cc (w/att): Mr. Robert Lawrence, USACE
 Ms. Debra O'Leary, USACE
 Mr. Brian Ross, U.S. EPA
 Ms. Brenda Goeden, BCDC
 Ms. Elizabeth Christian, SFRWQCB
 Mr. Daniel Glaze, GRC
 Ms. Valerie Uyeda, P66

Attachment 1

Analytical Chemistry Results and Sample Locations

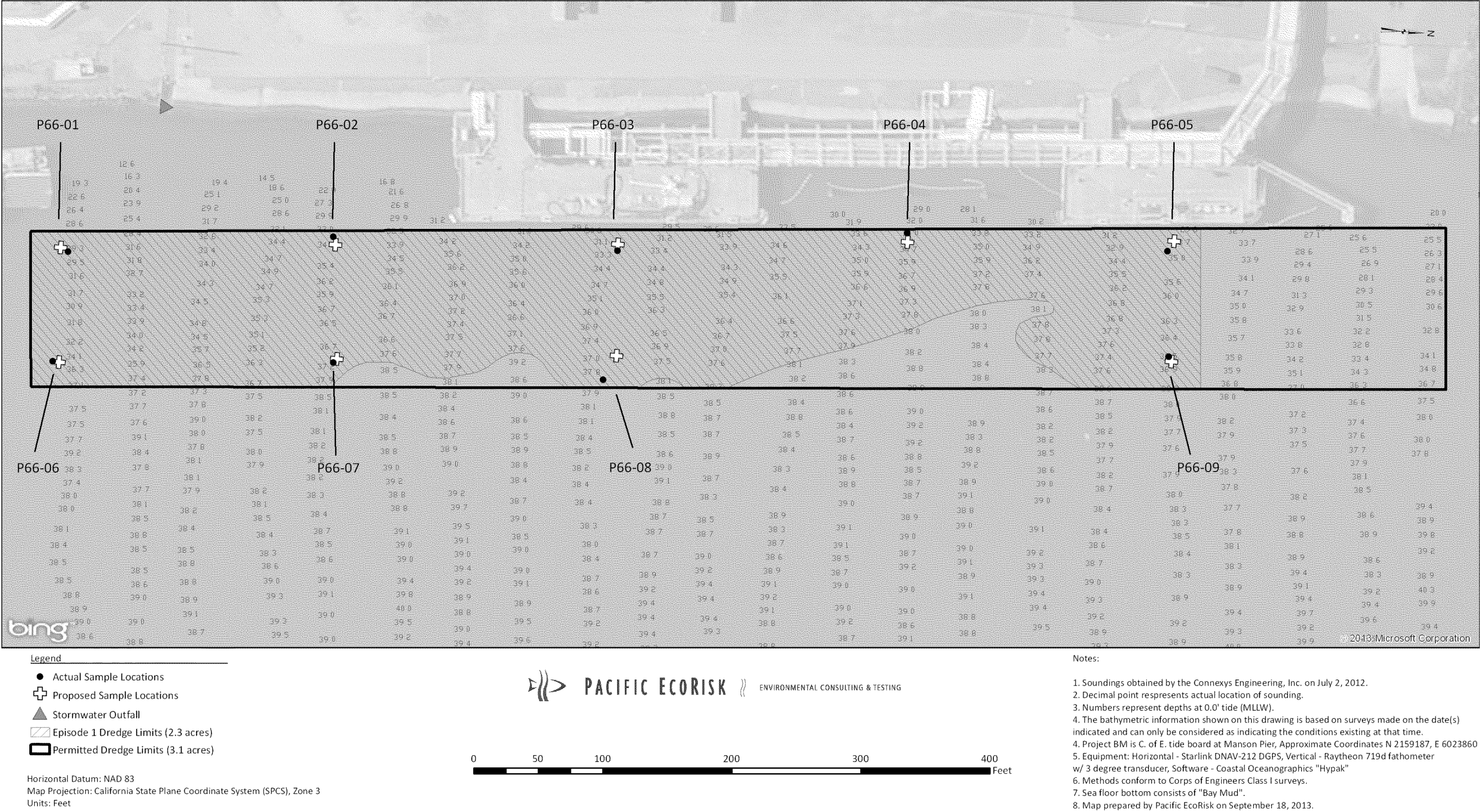


Figure 1. Phillips 66 Richmond Marine Terminal Sample Locations

Table 1. Phillips 66 Richmond Marine Terminal Sediment Grain Size, Total Solids (%), and Total Organic Carbon (%).

Analytes	P66-Comp	SF-DODs Database
% Gravel	0.0	16-60
% Sand	0.010	-
% Silt	65.67	25-62
% Clay	34.32	13-24
Total % Fines (silt & clay)	99.99	-
Total Solids (%)	40.8	-
Total Organic Carbon (%)	1.7	0.63-1.45

Table 2. Phillips 66 Richmond Marine Terminal Sediment Metals Concentrations (mg/kg, dry wt).

Metals	P66-Comp	Bay Ambient <100 % Fines ^c	SF-DODs Database
Arsenic	10.7	15.3	2.2-5.33
Cadmium	0.414	0.33, (0.7 ^a)	0.3-0.6
Chromium	81.1	112	69.2-283
Copper	69.2	68.1	18.3-86.3
Lead	31.9	43.2	5.1-26
Mercury	0.359	0.43 (0.469 ^b)	0.1-0.2
Nickel	82.2	112	50.9-238
Selenium	0.221	0.64	0.6-2.6
Silver	0.322	0.58	0.2-1.0
Zinc	143	158	60.8-288

a - CRRP screening concentration (USFWS 2010).

b – Mercury concentration SF Bay TMDL threshold (= 99th percentile for San Francisco Bay [SFEI 2013]).

c - SFRWQCB 1998.

Table 3. Phillips 66 Richmond Marine Terminal Sediment Organotin Concentrations (µg/kg, dry wt).

Organotins	P66-Comp	Bay Ambient <100 % Fines ^b	SF-DODs Database
Butyltin	<1.6	a	-
Dibutyltin	<1.6	a	-
Tributyltin	<1.4	a	-
Tetrabutyltin	<1.9	a	-
Total Detected Organotins	0.0	a	≤1.3

a - no data available.

b - SFRWQCB 1998.

All results below the MDL are reported as < the MDL.

Table 4. Phillips 66 Richmond Marine Terminal Sediment PCB Congener Concentrations (µg/kg, dry wt).

PCBs	P66-01	P66-01-Z	P66-02	P66-02-Z	P66-03	P66-03-Z	P66-04	P66-04-Z	P66-05	P66-05-Z	P66-06	P66-06-Z	P66-07	P66-07-Z	P66-08	P66-08-Z	P66-09	P66-09-Z	P66-COMP	Bay Ambient <100% Fines ^b	SF-DODs Database
PCB 008	<0.19	0.26 J	<0.21	0.27 J	<0.21	0.38 J	<0.20	<0.20	<0.20	<0.19	<0.20	<0.20	<0.21	<0.14	<0.21	<0.15	<0.20	<0.20	<0.21	a	-
PCB 018	<0.36	0.53 J	<0.39	0.50 J	<0.39	0.74 J	0.44 J	<0.36	<0.36	<0.35	<0.38	<0.37	<0.39	<0.26	<0.39	<0.28	0.44 J	0.43 J	<0.39	a	-
PCB 028	0.75 J	0.63 J	0.60 J	0.82 J	0.57 J	0.95 J	0.84 J	0.77 J	0.53 J	0.41 J	0.54 J	0.54 J	0.70 J	0.25 J	0.67 J	0.31 J	0.66 J	0.71 J	0.59 J	a	-
PCB 031	0.47 J	0.80 J	0.41 J	0.53 J	0.42 J	0.54 J	0.67 J	0.60 J	0.61 J	<0.26	0.45 J	0.32 J	0.48 J	0.22 J	0.56 J	0.35 J	0.61 J	0.60 J	0.55 J	a	-
PCB 033	0.54 J	0.46 J	0.57 J	0.48 J	0.48 J	0.85 J	0.59 J	0.51 J	0.39 J	0.30 J	0.39 J	<0.26	0.95 J	0.23 J	1.1 J	0.23 J	0.82 J	0.60 J	0.60 J	a	-
PCB 044	0.85 J	0.98 J	0.93 J	0.71 J	0.80 J	0.82 J	0.99 J	0.48 J	0.45 J	0.50 J	0.57 J	0.69 J	0.89 J	<0.22	0.75 J	0.31 J	0.97 J	0.74 J	0.60 J	a	-
PCB 049	0.73 J	0.94 J	0.53 J	0.69 J	0.92 J	0.91 J	0.88 J	0.64 J	0.51 J	0.39 J	0.46 J	0.37 J	0.67 J	0.24 J	0.63 J	0.36 J	0.76 J	0.78 J	0.64 J	a	-
PCB 052	0.96 J	1.1	0.90 J	1.2	1.1 J	1.5	1.4	0.77 J	0.68 J	0.63 J	0.82 J	0.67 J	1.7	0.25 J	1.7	0.41 J	1.8	1.2 J	1.0 J	a	-
PCB 056	<0.32	0.56 J	0.43 J	0.42 J	<0.34	0.52 J	<0.32	<0.32	<0.32	<0.31	<0.33	<0.33	<0.34	<0.23	<0.34	<0.25	<0.33	0.37 J	<0.34	a	-
PCB 060	<0.24	<0.23	<0.27	<0.24	<0.26	<0.25	<0.25	<0.24	<0.25	<0.24	<0.25	<0.25	<0.26	<0.17	<0.26	<0.19	<0.25	<0.25	<0.26	a	-
PCB 066	1.2	1.4	0.67 J	0.86 J	0.91 J	1.4	1.4	0.74 J	0.63 J	0.88 J	0.63 J	0.55 J	1.0 J	0.49 J	1.2 J	0.52 J	0.86 J	1.1 J	0.87 J	a	-
PCB 070	1.0 J	1.1	0.76 J	0.87 J	1.1 J	0.94 J	1.3	0.81 J	0.62 J	0.60 J	<0.20	0.44 J	1.1 J	0.29 J	0.91 J	0.46 J	0.91 J	1.0 J	0.77 J	a	-
PCB 074	0.57 J	0.58 J	0.48 J	0.51 J	0.67 J	0.64 J	0.74 J	0.42 J	0.35 J	0.42 J	0.34 J	0.34 J	0.63 J	0.21 J	0.50 J	0.29 J	0.57 J	0.60 J	0.40 J	a	-
PCB 087	0.42 J	0.53 J	0.39 J	0.30 J	0.55 J	0.50 J	0.67 J	0.46 J	0.36 J	<0.22	0.43 J	<0.24	<0.25	0.19 J	0.52 J	<0.18	0.66 J	0.36 J	0.48 J	a	-
PCB 095	1.4	1.7	0.87 J	1.3	1.4	1.1 J	1.5	0.85 J	0.97 J	0.73 J	1.1 J	0.67 J	1.4	0.44 J	1.3	0.47 J	1.5	1.4	1.0 J	a	-
PCB 097	1.0 J	0.76 J	0.48 J	0.95 J	0.87 J	0.80 J	1.2	0.49 J	0.60 J	0.36 J	<0.33	0.39 J	1.3	0.37 J	1.1 J	0.35 J	1.0 J	0.85 J	0.81 J	a	-
PCB 099	1.1 J	1.1	0.69 J	0.90 J	0.91 J	0.87 J	1.0 J	0.68 J	0.62 J	0.62 J	0.61 J	0.45 J	1.3	0.33 J	1.0 J	0.46 J	1.0 J	0.96 J	0.74 J	a	-
PCB 101	1.9	2.2	1.3	1.8	2.0	1.9	2.3	1.3	1.3	1.0 J	1.3	0.78 J	2.0	0.68 J	1.9	0.80 J	1.9	1.8	1.5	a	-
PCB 105	0.72 J	1.2	0.47 J	0.68 J	1.0 J	0.87 J	1.4	0.49 J	0.44 J	0.47 J	0.56 J	0.50 J	1.2 J	0.24 J	0.96 J	0.35 J	0.91 J	0.84 J	0.74 J	a	-
PCB 110	1.7	2.3	1.1 J	1.6	1.7	1.8	2.5	1.1 J	1.1 J	0.89 J	1.3	0.71 J	1.9	0.52 J	1.8	0.77 J	1.8	1.7	1.4	a	-
PCB 118	1.8	2.1	1.2 J	1.7	2.0	2.0	2.3	1.3	1.2	1.1	1.6	0.95 J	2.6	0.57 J	2.0	0.79 J	2.0	2.0	1.6	a	-
PCB 128	<0.24	<0.22	<0.26	0.31 J	<0.25	<0.24	<0.24	0.34 J	<0.24	<0.23	<0.25	<0.24	<0.26	<0.17	<0.26	<0.18	0.64 J	<0.24	<0.25	a	-
PCB 132	<0.38	<0.35	<0.41	<0.38	<0.41	<0.39	<0.39	<0.38	<0.38	<0.37	<0.40	<0.39	<0.41	<0.27	<0.41	<0.30	<0.39	<0.39	<0.41	a	-
PCB 138/158	2.4	2.7	1.7 J	2.2 J	2.3 J	2.4	3.2	1.6 J	1.6 J	1.3 J	1.7 J	0.93 J	2.5	0.73 J	2.5	0.91 J	2.4	2.2 J	2.1 J	a	-
PCB 141	<0.26	0.49 J	0.39 J	0.63 J	<0.27	0.61 J	<0.26	<0.26	<0.26	0.29 J	<0.27	<0.26	<0.28	<0.18	<0.28	<0.20	<0.26	0.48 J	<0.27	a	-
PCB 149	1.6	1.8	0.89 J	1.3	1.6	1.5	1.8	1.0 J	0.97 J	0.90 J	0.99 J	0.67 J	1.4	0.50 J	1.4	0.59 J	1.3	1.6	1.2	a	-
PCB 151	<0.24	0.66 J	<0.26	0.45 J	0.62 J	<0.24	<0.24	0.32 J	<0.24	<0.23	<0.25	<0.25	0.79 J	<0.17	<0.26	<0.19	0.50 J	<0.25	<0.25	a	-
PCB 153	2.6	3.2	1.6	2.2	2.5	2.8	3.4	1.7	1.6	1.4	1.6	1.1 J	2.8	0.86	2.8	1.0	2.6	2.6	2.0	a	-
PCB 156	0.41 J	<0.21	<0.24	0.68 J	<0.24	<0.23	<0.23	<0.23	0.39 J	<0.22	<0.23	<0.23	0.77 J	<0.16	<0.24	<0.18	<0.23	<0.23	0.36 J	a	-
PCB 170	0.86 J	0.97 J	<0.23	0.63 J	0.82 J	0.69 J	0.74 J	0.45 J	0.40 J	0.28 J	0.32 J	0.26 J	0.43 J	0.27 J	0.68 J	0.37 J	0.56 J	0.63 J	0.45 J	a	-
PCB 174	0.55 J	0.70 J	<0.27	0.52 J	<0.26	<0.25	0.94 J	<0.25	0.40 J	<0.24	0.30 J	<0.25	0.61 J	<0.18	0.58 J	<0.19	0.60 J	0.53 J	0.47 J	a	-
PCB 177	0.34 J	<0.26	<0.31	<0.28	<0.30	<0.29	<0.29	<0.28	<0.28	<0.27	<0.30	<0.29	<0.31	<0.20	0.36 J	<0.22	0.30 J	0.38 J	<0.30	a	-
PCB 180	1.3	1.5	0.82 J	1.0 J	1.4	1.4	1.9	1.1 J	0.92 J	0.70 J	0.88 J	0.52 J	1.5	0.45 J	1.5	0.49 J	1.4	1.3	1.0 J	a	-
PCB 183	0.32 J	<0.24	<0.28	0.32 J	0.28 J	<0.26	0.44 J	<0.26	<0.26	<0.25	<0.27	<0.26	0.32 J	<0.18	0.35 J	<0.20	0.35 J	0.35 J	0.34 J	a	-
PCB 187	0.87 J	1.0 J	0.56 J	0.82 J	0.79 J	0.86 J	1.1 J	0.51 J	0.52 J	0.50 J	0.63 J	0.36 J	0.91 J	0.29 J	0.96 J	0.35 J	0.88 J	0.93 J	0.65 J	a	-
PCB 194	<0.22	<0.20	<0.24	<0.22	<0.23	<0.22	0.94 J	<0.22	<0.22	<0.21	<0.23	<0.23	<0.24	<0.16	<0.24	<0.17	<0.23	<0.23	<0.23	a	-
PCB 195	<0.12	<0.11	<0.13	<0.12	<0.13	<0.12	<0.12	<0.12	<0.12	<0.12	<0.13	<0.12	<0.13	<0.087	<0.13	<0.095	<0.13	<0.13	<0.13	a	-
PCB 201	<0.13	<0.12	<0.14	<0.13	<0.14	<0.13	<0.13	<0.13	<0.13	<0.13	<0.14	<0.13	<0.14	<0.094	<0.14	<0.10	<0.14	<0.14	<0.14	a	-
PCB 203	<0.25	<0.23	<0.27	<0.25	<0.26	<0.25	<0.25	<0.25	<0.25	<0.24	<0.26	<0.25	<0.27	<0.18	<0.27	<0.19	<0.26	<0.26	<0.26	a	-
Total PCBs	28.36	34.25	18.74	28.15	27.71	30.29	36.58	19.43	18.16	14.67	17.52	12.21	31.85	8.62	29.73	10.94	30.7	29.04	22.86	22.7, 29.3 ^c , 17.0 ^d	<MDL

a - No reference value has been established for the individual congeners; the Total Detected PCB congener reference value (SFRWQCB 1998) is used as a default value.

b - SFRWQCB 1998

c - San Francisco Bay 99th percentile PCB concentration (SFRWQCB 2013).

d - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

J - Analyte was detected at a concentration below the MRL and above the MDL, and therefore is an estimate.

All results below laboratory method detection limit (MDL) are reported as < the MDL.

Table 5. Phillips 66 Richmond Marine Terminal Sediment Organochlorine Pesticide Concentrations (µg/kg, dry wt).

Organochlorine Pesticides	P66-01	P66-01-Z	P66-02	P66-02-Z	P66-03	P66-03-Z	P66-04	P66-04-Z	P66-05	P66-05-Z	P66-06	P66-06-Z	P66-07	P66-07-Z	P66-08	P66-08-Z	P66-09	P66-09-Z	P66-COMP	Bay Ambient <100% Fines ^b	SF-DODs Database
Aldrin	<0.72	<0.67	<0.79	<0.72	<0.77	<0.74	<0.73	<0.73	<0.73	<0.70	<0.75	<0.75	<0.78	<0.52	<0.78	<0.56	<0.75	<0.75	<0.77	1.1	-
alpha-BHC	<0.74	<0.69	<0.81	<0.74	<0.80	<0.76	<0.76	<0.75	<0.75	<0.72	<0.78	<0.77	<0.81	<0.53	<0.81	<0.58	<0.77	<0.77	<0.79	-	-
beta-BHC	<0.61	<0.56	<0.66	<0.61	<0.65	<0.62	<0.62	<0.61	<0.61	<0.59	<0.63	<0.63	<0.66	<0.44	<0.66	<0.47	<0.63	<0.63	<0.65	-	-
delta-BHC	<0.59	<0.54	<0.64	<0.59	<0.63	<0.60	<0.60	<0.59	<0.59	<0.57	<0.61	<0.61	<0.64	<0.42	<0.64	<0.46	<0.61	<0.61	<0.63	-	-
gamma-BHC (Lindane)	<0.80	<0.74	<0.87	<0.80	<0.85	<0.81	<0.81	<0.80	<0.80	<0.77	<0.83	<0.82	<0.86	<0.57	<0.86	<0.62	<0.82	<0.82	<0.85	-	-
Total Detected BHCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.78, 0.99 ^a	-
Chlordane	<7.5	<7.0	<8.2	<7.5	<8.0	<7.7	<7.6	<7.5	<7.5	<7.3	<7.8	<7.7	<8.1	<5.4	<8.1	<5.9	<7.8	<7.8	<8.0	1.1, 37 ^b	-
Dieldrin	0.97 J	1.1 J	0.85 J	<0.76	<0.81	1.0 J	1.0 J	1.0 J	<0.76	0.93 J	<0.79	<0.78	<0.82	<0.54	<0.82	0.62 J	0.81 J	<0.78	<0.81	0.44, 0.72 ^a , 1.9 ^b	-
Endosulfan I	<0.60	<0.56	<0.66	<0.60	<0.64	<0.62	<0.61	<0.60	<0.61	<0.58	<0.63	<0.62	<0.65	<0.43	<0.65	<0.47	<0.62	<0.62	<0.64	-	-
Endosulfan II	<0.64	<0.59	<0.70	<0.64	<0.69	<0.66	<0.65	<0.64	<0.65	<0.62	<0.67	<0.66	<0.70	<0.46	<0.70	<0.50	<0.66	<0.66	<0.68	-	-
Endosulfan Sulfate	<0.78	<0.72	<0.84	<0.78	<0.83	<0.80	<0.79	<0.78	<0.78	<0.75	<0.81	<0.80	<0.84	<0.56	<0.84	<0.61	<0.80	<0.80	<0.83	-	-
Endrin	<0.82	<0.76	<0.90	<0.82	<0.88	<0.84	<0.84	<0.83	<0.83	<0.80	<0.86	<0.85	<0.89	<0.59	<0.89	<0.64	<0.85	<0.85	<0.88	0.78	-
Endrin Aldehyde	<0.56	<0.52	<0.61	<0.56	<0.60	<0.57	<0.57	<0.56	<0.56	<0.54	<0.59	<0.58	<0.61	<0.40	<0.61	<0.44	<0.58	<0.58	<0.60	-	-
Heptachlor	<0.74	<0.68	<0.80	<0.74	<0.79	<0.76	<0.75	<0.74	<0.74	<0.72	<0.77	<0.76	<0.80	<0.53	<0.80	<0.58	<0.76	<0.76	<0.79	-	-
Heptachlor Epoxide	1.5 J	<0.76	1.3 J	<0.82	<0.87	<0.84	<0.83	<0.82	<0.82	<0.79	<0.85	<0.84	<0.88	<0.59	<0.89	<0.64	<0.84	<0.84	<0.87	-	-
Toxaphene	<15	<13	<16	<15	<16	<15	<15	<15	<15	<14	<15	<15	<16	<10	<16	<11	<15	<15	<16	-	-
2,4'-DDD	4.3	3.3	2.8	2.7	1.4 J	3.7	1.8 J	4.4	1.2 J	3.9	<0.81	1.5 J	<0.84	2.7	0.96 J	2.6	2.9	2.7	1.5 J	-	-
4,4'-DDD	18	15	12	11	6.7	17	9.1	21	6.6	19	2.4	5.9	3.4	14	5.3	12	14	13	8.4	-	-
2,4'-DDE	<0.70	<0.65	<0.76	<0.70	<0.75	<0.72	<0.71	<0.70	<0.71	<0.68	<0.73	<0.72	<0.76	<0.50	<0.76	160	<0.73	35 E	<0.75	-	-
4,4'-DDE	4.3	4.2	3.5	2.7	2.3 J	4.1	2.7	5.0	1.8 J	4.0	0.91 J	1.7 J	1.3 J	2.0	1.3 J	2.7	2.3 J	2.2 J	2.5	-	-
2,4'-DDT	<0.69	<0.64	<0.75	<0.69	<0.74	<0.71	<0.70	<0.69	<0.69	<0.67	<0.72	<0.71	<0.75	<0.50	<0.75	<0.54	<0.71	<0.71	<0.74	-	-
4,4'-DDT	3.7	6.7	3.5	2.4	1.5 J	3.9	3.2	2.3 J	1.9 J	3.0	<0.80	1.2 J	0.93 J	0.64 J	3.0	0.97 J	1.1 J	2.7	3.7	-	-
Total Detected DDTs	30.3	29.2	21.8	18.8	11.9	28.7	16.8	32.7	11.5	29.9	3.31	10.3	5.63	19.34	10.56	178	20.3	55.6	16.1	7.0 ^a , 50 ^b	not detected

a - CRRP screening concentration (USFWS 2010). It should be noted that the total BHC screening concentration was based on the PEL(McDonald et al 1996) for gamma-BHC (Lindane).

b - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

c - SFRWQCB 1998

J - Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit; the reported value is therefore an estimate.

All results below the MDL are reported as < the MDL.

Table 6. Phillips 66 Richmond Marine Terminal Sediment PAH Concentrations
(µg/kg, dry wt).

PAHs	P66-Comp	Bay Ambient <100% Fines ^f	SF-DODs Database
Acenaphthene ^a	18 J	26.6	-
Acenaphthylene ^a	18 J	31.7	-
Anthracene ^a	49	88	-
Benzo(a)anthracene ^b	95	244	-
Benzo(a)pyrene ^b	180	412	-
Benzo(b)fluoranthene ^b	160	371	-
Benzo(e)pyrene ^c	140	294	-
Benzo(g,h,i)perylene ^b	140	310	-
Benzo(k)fluoranthene ^b	150	258	-
Biphenyl ^c	11 J	12.9	-
Chrysene ^b	150	289	-
Dibenzo(a,h)anthracene ^b	27	32.7	-
2,6-Dimethylnaphthalene ^c	55	12.1	-
Fluoranthene ^b	140	514	-
Fluorene ^a	24 J	25.3	-
Indeno(1,2,3-c,d)pyrene ^b	110	382	-
2-Methylnaphthalene ^c	14 J	19.4	-
1-Methylnaphthalene ^c	9.5 J	12.1	-
1-Methylphenanthrene ^c	<4.0	31.7	-
Naphthalene ^a	24 J	55.8	-
Perylene ^c	99	145	-
Phenanthrene ^a	74	237	-
Pyrene ^b	280	665	-
1,6,7-Trimethylnaphthalene ^c	3.7 J	-	-
Dibenzothiophene ^c	9.6 J	-	-
Total SF-DODS LPAH^a	207	-	≤77
Total SF-DODS HPAH^b	1,432	-	≤115
Total SF-DODS PAHs	1,639	-	≤192
Total Detected PAHs	1,981	3390^d, 4800^e	-

a - SF-DODS Low molecular weight PAH (LPAH).

b - SF-DODS High molecular weight PAH (HPAH).

c - San Francisco Bay additional RMP PAHs (USACE/USEPA 2011).

d - San Francisco Bay ambient PAH Level (SFRWQCB 1998).

e - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

f - SFRWQCB 1998

J - Analyte was detected at a concentration below the MRL and above the MDL, and therefore is an estimate.

Table 7. Phillips 66 Richmond Marine Terminal Sediment Dioxin Concentrations
($\mu\text{g/kg}$, dry wt).

Analyte	P66-Comp	Bay Ambient <100 % Fines ^c	SF-DODs Database
Dioxins (as Total TCDD TEQ)	0.00238	0.01 ^a , 0.02 ^b	-

a - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

b - CRRP dioxin (total TCDD TEQ) screening concentration (USFWS 2010).

c - SFRWQCB 1998

Ms. Debra O'Leary
U.S. Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103-1398

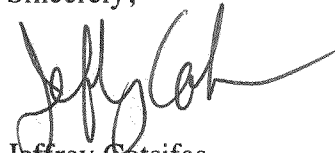
March 12, 2014

Dear Ms. O'Leary:

At the February 15, 2014, DMMO meeting, the Sampling and Analysis Results (SAR) report "Characterization of the Sediment from the Phillips 66 Richmond Marine Terminal: Results of Dredge Materials Sampling and Analysis" was presented. At this meeting, the DMMO determined that the proposed dredged material from the Phillips 66 Marina Terminal (P66) would be suitable for placement at the San Francisco Bay Deep Ocean Disposal site (SF-DODS). However, due to a measured total DDT concentration in the "Z-layer" sediment composite sample that was slightly above the SF Bay bioaccumulation trigger level of 50 $\mu\text{g/kg}$ and an elevated concentration of total DDTs (178 $\mu\text{g/kg}$) in the P-66 08-Z individual sediment core sample, the DMMO requested that Phillips 66 estimate the potential for the bioaccumulation of DDT from these sediments using the existing sediment and tissue DDT concentration data presented in the SAR. The results of this assessment are attached.

If you have any questions, please give me a call at (707) 207-7761. I look forward to hearing from you.

Sincerely,



Jeffrey Cotsifas
President

(w/enc): Ms. Melissa Scianni, U.S. EPA
Ms. Brenda Goeden, BCDC
Ms. Elizabeth Christian, SFRWQCB
Ms. Valerie Uyeda, Phillips 66
Mr. Gabriel Munoz, Phillips 66
Mr. Daniel Glaze, Glaze Regulatory Consulting

1. INTRODUCTION

At the February 15, 2014, DMMO meeting, the Sampling and Analysis Results (SAR) report “Characterization of the Sediment from the Phillips 66 Richmond Marine Terminal: Results of Dredge Materials Sampling and Analysis” was presented. At this meeting, it was determined by the DMMO that the proposed dredged material from the Phillips 66 Marina Terminal (P66) would be suitable for placement at the San Francisco Bay Deep Ocean Disposal site (SF-DODS). However, due to a measured total DDT concentration in the P66 “Z-layer” sediment composite sample that was slightly above the SF Bay bioaccumulation trigger level of 50 $\mu\text{g/kg}$ and an elevated concentration of total DDTs (178 $\mu\text{g/kg}$) in the P66-08-Z individual sediment core sample, the DMMO requested that Phillips 66 estimate the bioaccumulation potential of DDT from these sediments using the existing sediment and tissue DDT concentration data presented in the SAR (PER 2014). This information would be used to support P66 permitting activities. Bioaccumulation potential was assessed using the following methodology:

1. A site-specific biota-sediment accumulation factor (BSAF) was determined for the P66 sediments using paired measured sediment DDT and tissue DDT concentrations (PER 2014);
2. The DDT theoretical bioaccumulation potential (TBP) of the P66-Z-Comp and P66-08-Z samples was calculated using the site-specific BSAF;
3. As the 28-day bioaccumulation test results underestimate DDT steady-state levels, the 28-day DDT TBP results were adjusted to represent steady-state conditions; and
4. The steady-state corrected DDT TBP estimates for the P66-Z-Comp and P66-08-Z sediments were compared to the DDT tissue toxicity reference values (TRV) established in the SAR (PER) 2014.

The results of this assessment are provided in the following sections.

1.1 Calculation of a Site Specific Biota-Sediment Accumulation Factor (BSAF)

A BSAF is a parameter describing bioaccumulation of sediment-associated organic compounds or metals into tissues of ecological receptors (EPA 2009). The BSAF is calculated from four measured variables (see Equation 1 below):

- C_o is the concentration of the chemical in the organism on a wet weight basis ($\mu\text{g/kg}$ wet weight (ww)),
- f_l is the lipid content of the wet tissue (g lipid/g ww),
- C_s is the concentration of the chemical in the sediment on a dry weight basis ($\mu\text{g/kg}$ dry weight (dw)), and
- f_{soc} is the organic carbon content of the dry sediment (g organic carbon/g dw).

Equation #1:

$$BSAF = \frac{C_o/f_l}{C_s/f_{soc}}$$

A Phillips 66 Marine Terminal site-specific BSAF was determined using measured sediment and tissue data from the most recent testing program (PER 2014). The data used to calculate the BSAF are presented below in Tables 1a and 1b. As there were no ‘detected’ DDT concentrations reported for the *Nereis virens* tissues (Table 1a), the *Macoma nasuta* tissue data were used to calculate the site specific *N. virens* BSAF; the tissue concentration estimates used for *N. virens* are therefore considered conservative. For each species, the highest calculated BSAF for any DDT isomer was selected for calculation of TPB for all isomers. BASFs were determined only for those DDT isomers for which there were paired detected sediment and tissue data and are presented in Table 2.

Table 1a. Phillips 66 Richmond Marine Terminal Sediment and Tissue Measured DDT Concentrations

Analyte	Sediment Concentrations (µg/kg dw)			Tissue Concentrations (µg/kg ww)	
	P66-Comp Sediment	P66-Z-Comp Sediment	P66-08-Z Sediment	P66-Comp <i>M. nasuta</i>	P66-Comp <i>N. virens</i>
2,4'-DDD	1.5 J	8.5	2.6	<0.40	<0.40
4,4'-DDD	8.4	31	12	2.9	<0.18
2,4'-DDE	<0.75	<0.71	160	0.54 J	<0.19
4,4'-DDE	2.5	12	2.7	0.85 J	<0.25
2,4'-DDT	<0.74	<0.70	<0.54	<0.31	<0.31
4,4'-DDT	3.7	9.5	0.97 J	<0.38	<0.38
Total Detected DDTs	16.1	61^a	178^a	4.29	0

a - Above San Francisco Bay Bioaccumulation total DDT Trigger Level of 50 µg/kg (USACE/USEPA 2011, SFEI 2013).

J - Analyte was detected at a concentration below the laboratory reporting limit and above the laboratory method detection limit; the reported value is therefore an estimate.

All results below the MDL are reported as < the MDL

Table 1b. Phillips 66 Richmond Marine Terminal Sediment TOC and Tissue Lipid Concentrations

Analyte	Sediment Concentrations (% dw) = g organic carbon/g dw			Tissue Concentrations (% ww) = g lipids/g ww	
	P66-Comp Sediment	P66-Z-Comp Sediment	P66-08-Z Sediment	P66-Comp <i>M. nasuta</i>	P66-Comp <i>N. virens</i>
Total Organic Carbon	1.7	1.6	0.92	-	-
Lipids	-	-	-	0.85	1.2

Table 2. Calculation of Phillips 66 Richmond Marine Terminal Site-Specific BSAF.

Organism	Analyte	Sediment (µg/kg dw)	TOC (% dw)	Lipid (% ww)	28 day Tissue (µg/kg ww)	BSAF
<i>Macoma nasuta</i>	4,4'-DDD	8.4	1.7	0.85	2.90	0.69
	4,4'-DDE	2.5	1.7	0.85	0.85	0.68
	Total DDT	16.1	1.7	0.85	4.29	0.53
<i>Nereis virens</i>	4,4'-DDD	8.4	1.7	1.2	2.90 ^a	0.49
	4,4'-DDE	2.5	1.7	1.2	0.85 ^a	0.48
	Total DDT	16.1	1.7	1.2	4.29 ^a	0.38

a - As there were no 'detected' DDT concentrations reported for the *Nereis virens* tissues (Table 1a), the *Macoma nasuta* tissue data were used to calculate the site-specific *N. virens* BSAF.

1.2 Theoretical Bioaccumulation Potential of P66 Z-Layer Samples

Since bioaccumulation testing was not performed on the P66-Z-Comp and P66-08-Z samples, the TBP was calculated using site-specific BSAFs derived from measured paired sediment DDT and tissue DDT concentrations for sediments collected from the P66 Marine Terminal (Section 1.1), and measured total DDTs and total organic carbon in the P66-Z-Comp and P66-08-Z samples (Tables 1a and 1b). The TBP was then calculated using Equation #2 and the results are presented in Table 3:

Equation #2:

$$TBP = BSAF (C_s / \%TOC) \%L$$

where TBP is expressed on a whole-body wet-weight basis in the same units as C_s and:

C_s = DDD, DDE, or DDT concentration measured in the P66-Z-Comp or P66-08-Z sample (PER 2014);

BSAF = site-specific factor derived from measured paired sediment DDTs and tissue DDTs values from sediments collected from the P66 Marine Terminal;

%TOC = TOC concentration measured in the P66-Z-Comp or P66-08-Z sample (PER 2014);

%L = *Macoma nasuta* and *Nereis virens* measured lipid content (PER 2014).

1.3 Comparison of Predicted DDT Tissue Concentrations to Toxicity Reference Values

As the TBP results were based on 28-day bioaccumulation test data and may not represent “steady-state” conditions for DDT compounds, an estimation of steady-state was performed for each compound using available information (USACE 2010) prior to comparison to TRV values. TRV values were selected as described in PER 2014; for each compound evaluated, the lowest

TRV was selected, regardless of species, to ensure that a conservative screening was applied. None of the predicted tissue concentrations exceeded the “effects” benchmark TRV values; summaries of the selected TRV values relative to the predicted test organism tissue concentrations in each sample are presented in Table 4.

**Table 3. Predicted Bioaccumulation of DDTs in Phillips 66 Z-Layer Samples:
Results of TBP Calculations.**

Site	Organism	Analyte	BSAF ^a	Sediment ($\mu\text{g/kg dw}$)	TOC (% dw)	Lipid (% ww)	Calculated TBP ($\mu\text{g/kg ww}$)
P66-Z-Comp	<i>Macoma nasuta</i>	2,4'-DDD	0.69	8.5	1.6	0.85	3.12
		4,4'-DDD	0.69	31	1.6	0.85	11.36
		4,4'-DDE	0.69	12	1.6	0.85	4.40
		4,4'-DDT	0.69	9.5	1.6	0.85	3.48
	<i>Nereis virens</i>	2,4'-DDD	0.49	8.5	1.6	1.2	3.12
		4,4'-DDD	0.49	31	1.6	1.2	11.39
		4,4'-DDE	0.49	12	1.6	1.2	4.41
		4,4'-DDT	0.49	9.5	1.6	1.2	3.49
P66-08-Z	<i>Macoma nasuta</i>	2,4'-DDD	0.69	2.6	0.92	0.85	1.66
		4,4'-DDD	0.69	12	0.92	0.85	7.65
		2,4'-DDE	0.69	160	0.92	0.85	102.0
		4,4'-DDE	0.69	2.7	0.92	0.85	1.72
		4,4'-DDT	0.69	0.97	0.92	1.2	0.87
	<i>Nereis virens</i>	2,4'-DDD	0.49	2.6	0.92	1.2	1.66
		4,4'-DDD	0.49	12	0.92	1.2	7.67
		2,4'-DDE	0.49	160	0.92	1.2	102.3
		4,4'-DDE	0.49	2.7	0.92	1.2	1.73
		4,4'-DDT	0.49	0.97	0.92	1.2	0.62

a - For each species, the highest calculated BSAF for any DDT isomer (see Table 2) was selected for calculation of TBP for all isomers.

1.4 References

PER (2014) Characterization of the Sediment from the Phillips 66 Richmond Marine Terminal: Results of Dredge Materials Sampling and Analysis. Prepared by Pacific EcoRisk, Fairfield, CA. Prepared for Phillips 66 Company, Richmond, CA.

USACE (2010) Determining Steady-state Tissues Residues for Invertebrates in Contaminated Sediment. United States Army Corps of Engineers: Engineer Research and Development Center. Vicksburg, MS. ERDC/EL TR-10-2.

USEPA (2009) Estimation of Biota Sediment Accumulation Factor (BSAF) from Paired Observations of Chemical Concentrations in Biota and Sediment. Ecological Risk Assessment Support Center Office of Research and Development. Cincinnati, OH. EPA/600/R-06/047.

Table 4. Comparison of Steady-State Corrected *Macoma nasuta* and *Nereis virens* Tissue Concentrations to the USACE ERED Database-Derived Toxicity Reference Values.

Site	Species	Chemical	Predicted Mean Tissue Concentration ($\mu\text{g/g}$, wet wt)	Steady-State Correction Factor ^A	Steady-State Corrected Mean Tissue Concentration	TRV	Exceedance of TRV?
P66-Z-Comp	<i>Macoma nasuta</i>	2,4'-DDD	3.12	1.61	5.02	1,500,000 ^B	no
		4,4'-DDD	11.36	1.58	17.95	1,500,000	no
		4,4'-DDE	4.40	2.00	8.80	4,000 ^C	no
		4,4'-DDT	3.48	1.72	5.99	92.2	no
	<i>Nereis virens</i>	2,4'-DDD	3.12	1.43	4.47	1,500,000 ^B	no
		4,4'-DDD	11.39	1.64	18.68	1,500,000	no
		4,4'-DDE	4.41	1.15	5.07	4,000 ^C	no
		4,4'-DDT	3.49	1.79	6.25	92.2	no
P66-08-Z	<i>Macoma nasuta</i>	2,4'-DDD	1.66	1.61	2.67	1,500,000 ^B	no
		4,4'-DDD	7.65	1.58	12.09	1,500,000	no
		2,4'-DDE	102	1.67	170.3	4,000 ^C	no
		4,4'-DDE	1.72	2.00	3.44	4,000	no
		4,4'-DDT	0.87	1.72	1.50	92.2	no
	<i>Nereis virens</i>	2,4'-DDD	1.66	1.43	2.38	1,500,000 ^B	no
		4,4'-DDD	7.67	1.64	12.58	1,500,000	no
		2,4'-DDE	102.3	1.30	132.9	4,000 ^C	no
		4,4'-DDE	1.73	1.15	1.98	4,000	no
		4,4'-DDT	0.62	1.79	1.11	92.2	no

TRV = Toxicity Reference Value (PER 2014)

A - USACE 2010.

B - There were no effect data available for 2,4-DDD; the TRV for 4,4-DDD was used.

C - There were no effect data available for 2,4-DDE; the TRV for 4,4-DDE was used.

Cc: Ross, Brian[Ross.Brian@epa.gov]; Christian, Elizabeth@Waterboards[Elizabeth.Christian@waterboards.ca.gov]; Brenda Goeden[BrendaG@bcdca.gov]; Scianni, Melissa[Scianni.Melissa@epa.gov]; O'Leary, Debra A SPN[Debra.A.O'Leary@usace.army.mil]
To: Lawrence, Robert J SPN[Robert.J.Lawrence@usace.army.mil]
From: Jeffrey Cotsifas
Sent: Fri 11/1/2013 8:19:13 PM
Subject: Re: [EXTERNAL] Phillips 66 Analytical Chemistry Results (UNCLASSIFIED)

Rob,

I probably should have separated out the issues a little better. I also recognize Z-layer results are a DMMO discussion, not just an EPA call. What we wanted to accomplish via email is:

1. Obtain an analyte list for bioaccumulation test tissue analysis - the EPA has responded and we will follow their guidance;
2. Based on the Z-layer analytical chemistry results, the proximity of the marine terminal to the United Heckathorn site, and the established United Heckathorn DDT cleanup goals, determine if EFH compliance can be established.

We plan on submitting a full SAR to the DMMO for review at a scheduled meeting; however, it will not contain any more information beyond the results of the tissue analysis (which will be needed to assess SF-DODS suitability). It will be close to a month+ before all data is compiled, submitted, and reviewed by the DMMO. As the current testing program does not call for any further testing beyond what has been provided in the summary, it would be nice to start the dialogue regarding EFH compliance as the Z-layer analytical chemistry results will likely be the driver. If this must wait until the full SAR is submitted, we will expedite submittal on our side.

**Regards,
Jeff**

Jeffrey Cotsifas
President
Pacific EcoRisk
Direct : (707) 207-7761
cotsifas@pacificecorisk.com
www.pacificecorisk.com

On Nov 1, 2013, at 12:00 PM, "Lawrence, Robert J SPN"
<Robert.J.Lawrence@usace.army.mil> wrote:

Classification: UNCLASSIFIED
Caveats: NONE

Jeff,

Thanks for the submittal. I will let EPA respond to your bioaccumulation issues.

Regarding a review of the results outside a meeting. What are you asking us to review - the chemical analysis report that you just provided or the full report, including bioassays, when it is finished? I assume you are asking for an expedited review of the full document, which we do not have. We (the DMMO) need that to be submitted before we even consider an expedited review. That said, since the dredging is not going to occur until next year, I don't understand the urgency to have the results reviewed outside a meeting. A permit decision might not be made until the results are reviewed, but the application processing can still move forward. So, you are really not gaining anything by requesting a review outside a meeting.

Please call me if you would like to discuss this further.

Respectfully,

Rob
(415) 503-6808

-----Original Message-----

From: Jeffrey Cotsifas [mailto:cotsifas@pacificecorisk.com]

Sent: Thursday, October 31, 2013 3:29 PM

To: Melissa Scianni

Cc: Brian Ross; Christian, Elizabeth@Waterboards; Brenda Goeden; Lawrence, Robert J SPN

Subject: [EXTERNAL] Phillips 66 Analytical Chemistry Results

Dear Ms. Scianni:

On behalf of the Phillips 66 (P66) Richmond Marine Terminal, Pacific Ecorisk (PER) is submitting attached the results of the chemical analyses of the sediments collected in support of the terminal's planned 2014 maintenance dredging episode for your review. Also attached is a map identifying the sediment sample locations.

Based on these results, P66 requests USEPA concurrence with the following:

1. The required analysis of bivalve and polychaete bioaccumulation test tissues will be limited to DDTs and PCBs to determine suitability for ocean placement; and
2. The sediment analytical testing program for this planned dredging episode is complete (excepting ongoing tissue analysis).

To expedite DMMO processing of P66's dredging permit application, PER requests to have these results reviewed via email and/or phone discussions. After receiving USEPA direction, we will initiate any required tissue analyses.

For convenience, one electronic copy of these results has also been sent to each of the other

DMMO participating agency representatives. A full report, in hard copy format, will be submitted upon completion of the remaining analyses.

Regards,

Jeff

Jeffrey Cotsifas

President

Pacific EcoRisk

Direct : (707) 207-7761

cotsifas@pacificecorisk.com

www.pacificecorisk.com <<http://www.pacificecorisk.com/>>

Classification: UNCLASSIFIED

Caveats: NONE

Cc: Ross, Brian[Ross.Brian@epa.gov]; Christian, Elizabeth@Waterboards[Elizabeth.Christian@waterboards.ca.gov]; Brenda Goeden[BrendaG@bcdcc.ca.gov]; Robert.J.Lawrence@usace.army.mil[Robert.J.Lawrence@usace.army.mil]
To: Scianni, Melissa[Scianni.Melissa@epa.gov]
From: Jeffrey Cotsifas
Sent: Thur 10/31/2013 10:29:04 PM
Subject: Phillips 66 Analytical Chemistry Results
[P66 Sediment Chemical Analysis Results.pdf](#)
[ATT00001.htm](#)

Dear Ms. Scianni:

On behalf of the Phillips 66 (P66) Richmond Marine Terminal, Pacific Ecorisk (PER) is submitting attached the results of the chemical analyses of the sediments collected in support of the terminal's planned 2014 maintenance dredging episode for your review. Also attached is a map identifying the sediment sample locations.

Based on these results, P66 requests USEPA concurrence with the following:

1. The required analysis of bivalve and polychaete bioaccumulation test tissues will be limited to DDTs and PCBs to determine suitability for ocean placement; and
2. The sediment analytical testing program for this planned dredging episode is complete (excepting ongoing tissue analysis).

To expedite DMMO processing of P66's dredging permit application, PER requests to have these results reviewed via email and/or phone discussions. After receiving USEPA direction, we will initiate any required tissue analyses.

For convenience, one electronic copy of these results has also been sent to each of the other DMMO participating agency representatives. A full report, in hard copy format, will be submitted upon completion of the remaining analyses.

**Regards,
Jeff**

Jeffrey Cotsifas
President
Pacific EcoRisk
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www.pacificecorisk.com

Ms. Melissa Scianni
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

October 30, 2013

Dear Ms. Scianni:

On behalf of the Phillips 66 (P66) Richmond Marine Terminal, Pacific Ecorisk (PER) is submitting attached the results of the chemical analyses of the sediments collected in support of the terminal's planned 2014 maintenance dredging episode for your review. Also attached is a map identifying the sediment sample locations.

Based on these results P66 requests USEPA concurrence with the following:

1. The required analysis of bivalve and polychaete bioaccumulation test tissues will be limited to DDTs and PCBs to determine suitability for ocean placement; and
2. The sediment analytical testing program for this planned dredging episode is complete (excepting ongoing tissue analysis).

P66 believes that adequate sediment chemistry characterization has been performed to support a suitability determination for placement at SF-DODS as well as meeting programmatic Essential Fish Habitat (EFH) requirements as they relate to obtaining a dredged materials maintenance dredging permit.

Briefly, the analytical chemistry and toxicity testing results indicated the following:

- The majority of compounds evaluated were similar to or below San Francisco Bay Background levels (SFRWQCB 1998);
- The results of total PCB analysis performed on individual sediment cores indicated that the measured PCB concentrations ranged from 17.52-36.58 $\mu\text{g/kg}$. Most of the sediment cores had PCB concentrations above the San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013) of 17.6 $\mu\text{g/kg}$. Some of the sediment cores had measured PCB concentrations that were above the San Francisco Bay TMDL threshold (San Francisco Bay 99th percentile PCB concentration [SFRWQCB 2013]) of 29.3 $\mu\text{g/kg}$ for placement in San Francisco Bay;
- Similarly, some of the corresponding sediment core Z-layer samples (estimated post-dredge mudline) had PCB concentrations above one or both of these thresholds;

- When the measured PCB concentration for the proposed dredged material at each sample location was compared to the corresponding Z-layer sample, results indicated that the measured PCB concentration for the Z-layer samples were similar to, or lower in concentration, than observed for the proposed dredged material;
- While all measured total DDT concentrations in the proposed dredged material were below the San Francisco Bay Bioaccumulation Trigger Level for DDTs, there were two Z-layer sediments (P66-08-Z and P66-09-Z) with total DDT concentrations above this threshold;
- The P66-09-Z Z-layer sample measured total DDT of 55.6 $\mu\text{g/kg}$ was slightly above the San Francisco Bay Bioaccumulation Trigger Level for total DDTs (50 $\mu\text{g/kg}$); the measured total DDTs in the P66-08-Z sample was 178 $\mu\text{g/kg}$;
- Toxicity was not observed to either amphipods or polychaetes; elutriate testing indicated that the narrative water quality criteria would be met at the SF-DODS or in-Bay placement sites.

As the measured total PCB concentrations for the Z-Layer individual sediment cores were similar to or less than the measured concentrations in the overlying proposed dredged material, the proposed dredging should not result in an increased exposure to total PCBs.

The measured total DDT concentrations for the Z-layer samples were typically higher than that of the proposed dredged material; however, with the exception of the P66-08-Z and P66-09-Z samples, all measured total DDT concentrations were below the San Francisco Bay Bioaccumulation Trigger Level for total DDT.

Based on PER's experience, it was not unexpected to observe sediment total DDT concentrations at this site above what is typical for San Francisco Bay as the P66 Richmond Marine Terminal permitted dredge limits are within 300-500 yards of the United Heckathorn Superfund Site. This site is a continuing source of DDT in the Richmond Inner Harbor sediments. PER understands that while the site was remediated by the US EPA in the late 1990s, follow-up monitoring studies have indicated that measured total DDTs at the site are above the previous onsite remedial action goal of 590 $\mu\text{g/kg}$ dry weight (USEPA 1994). Ongoing studies are being performed by the US EPA to determine an appropriate future remedial approach for the site such that the remedial action goal can be achieved indefinitely.

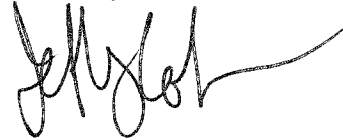
Furthermore, as the measured total DDT concentrations in the P66-08-Z and P66-09-Z samples are below the United Heckathorn Superfund site ecological and human health risk sediment cleanup goals of 590 $\mu\text{g/kg}$ dry weight total DDT (USEPA 1994) and also below the no action screening limit of 420 $\mu\text{g/kg}$ dry weight total DDT ((USEPA 1994) for areas outside the superfund site and within the Richmond Inner Harbor, planned 2014 dredging of sediments at the P66 Richmond Marine Terminal is not expected to impact aquatic resources.

To expedite DMMO processing of P66's dredging permit application, PER requests to have these results reviewed via email and/or phone discussions. After receiving USEPA direction, we will initiate any required tissue analyses.

For convenience, one electronic copy of these results has also been sent to each of the other DMMO participating agency representatives. A full report, in hard copy format, will be submitted upon completion of the remaining analyses.

If you have any questions, please give me a call at (707) 207-7761. I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffrey Cotsifas', with a long horizontal flourish extending to the right.

Jeffrey Cotsifas
President

cc (w/att): Mr. Robert Lawrence, USACE
 Ms. Debra O'Leary, USACE
 Mr. Brian Ross, U.S. EPA
 Ms. Brenda Goeden, BCDC
 Ms. Elizabeth Christian, SFRWQCB
 Mr. Daniel Glaze, GRC
 Ms. Valerie Uyeda, P66

Attachment 1

Analytical Chemistry Results and Sample Locations

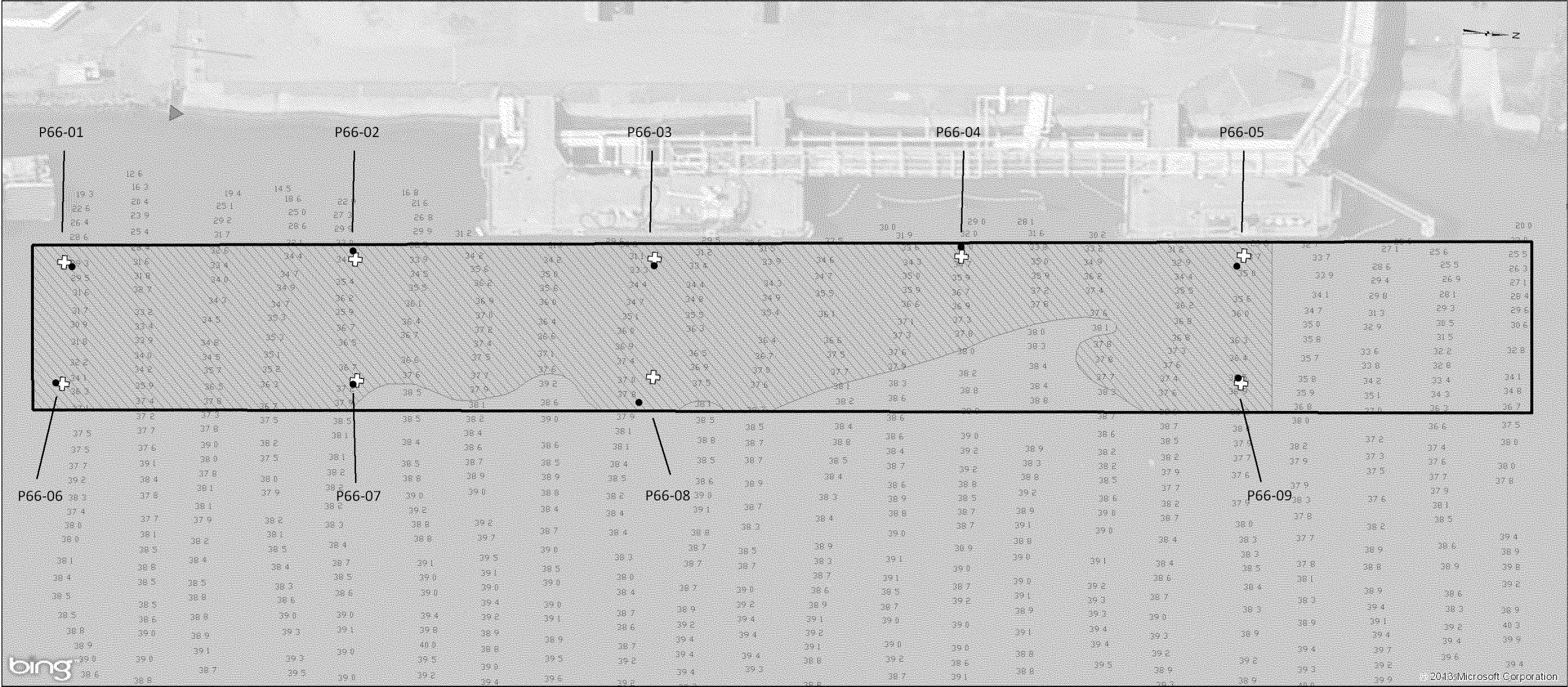


Figure 1. Phillips 66 Richmond Marine Terminal Sample Locations

Table 1. Phillips 66 Richmond Marine Terminal Sediment Grain Size, Total Solids (%), and Total Organic Carbon (%).

Analytes	P66-Comp	SF-DODs Database
% Gravel	0.0	16-60
% Sand	0.010	-
% Silt	65.67	25-62
% Clay	34.32	13-24
Total % Fines (silt & clay)	99.99	-
Total Solids (%)	40.8	-
Total Organic Carbon (%)	1.7	0.63-1.45

Table 2. Phillips 66 Richmond Marine Terminal Sediment Metals Concentrations (mg/kg, dry wt).

Metals	P66-Comp	Bay Ambient <100 % Fines ^c	SF-DODs Database
Arsenic	10.7	15.3	2.2-5.33
Cadmium	0.414	0.33, (0.7 ^a)	0.3-0.6
Chromium	81.1	112	69.2-283
Copper	69.2	68.1	18.3-86.3
Lead	31.9	43.2	5.1-26
Mercury	0.359	0.43 (0.469 ^b)	0.1-0.2
Nickel	82.2	112	50.9-238
Selenium	0.221	0.64	0.6-2.6
Silver	0.322	0.58	0.2-1.0
Zinc	143	158	60.8-288

a - CRRP screening concentration (USFWS 2010).

b – Mercury concentration SF Bay TMDL threshold (= 99th percentile for San Francisco Bay [SFEI 2013]).

c - SFRWQCB 1998.

Table 3. Phillips 66 Richmond Marine Terminal Sediment Organotin Concentrations (µg/kg, dry wt).

Organotins	P66-Comp	Bay Ambient <100 % Fines ^b	SF-DODs Database
Butyltin	<1.6	a	-
Dibutyltin	<1.6	a	-
Tributyltin	<1.4	a	-
Tetrabutyltin	<1.9	a	-
Total Detected Organotins	0.0	a	≤1.3

a - no data available.

b - SFRWQCB 1998.

All results below the MDL are reported as < the MDL.

Table 4. Phillips 66 Richmond Marine Terminal Sediment PCB Congener Concentrations (µg/kg, dry wt).

PCBs	P66-01	P66-01-Z	P66-02	P66-02-Z	P66-03	P66-03-Z	P66-04	P66-04-Z	P66-05	P66-05-Z	P66-06	P66-06-Z	P66-07	P66-07-Z	P66-08	P66-08-Z	P66-09	P66-09-Z	P66-COMP	Bay Ambient <100% Fines ^b	SF-DODs Database
PCB 008	<0.19	0.26 J	<0.21	0.27 J	<0.21	0.38 J	<0.20	<0.20	<0.20	<0.19	<0.20	<0.20	<0.21	<0.14	<0.21	<0.15	<0.20	<0.20	<0.21	a	-
PCB 018	<0.36	0.53 J	<0.39	0.50 J	<0.39	0.74 J	0.44 J	<0.36	<0.36	<0.35	<0.38	<0.37	<0.39	<0.26	<0.39	<0.28	0.44 J	0.43 J	<0.39	a	-
PCB 028	0.75 J	0.63 J	0.60 J	0.82 J	0.57 J	0.95 J	0.84 J	0.77 J	0.53 J	0.41 J	0.54 J	0.54 J	0.70 J	0.25 J	0.67 J	0.31 J	0.66 J	0.71 J	0.59 J	a	-
PCB 031	0.47 J	0.80 J	0.41 J	0.53 J	0.42 J	0.54 J	0.67 J	0.60 J	0.61 J	<0.26	0.45 J	0.32 J	0.48 J	0.22 J	0.56 J	0.35 J	0.61 J	0.60 J	0.55 J	a	-
PCB 033	0.54 J	0.46 J	0.57 J	0.48 J	0.48 J	0.85 J	0.59 J	0.51 J	0.39 J	0.30 J	0.39 J	<0.26	0.95 J	0.23 J	1.1 J	0.23 J	0.82 J	0.60 J	0.60 J	a	-
PCB 044	0.85 J	0.98 J	0.93 J	0.71 J	0.80 J	0.82 J	0.99 J	0.48 J	0.45 J	0.50 J	0.57 J	0.69 J	0.89 J	<0.22	0.75 J	0.31 J	0.97 J	0.74 J	0.60 J	a	-
PCB 049	0.73 J	0.94 J	0.53 J	0.69 J	0.92 J	0.91 J	0.88 J	0.64 J	0.51 J	0.39 J	0.46 J	0.37 J	0.67 J	0.24 J	0.63 J	0.36 J	0.76 J	0.78 J	0.64 J	a	-
PCB 052	0.96 J	1.1	0.90 J	1.2	1.1 J	1.5	1.4	0.77 J	0.68 J	0.63 J	0.82 J	0.67 J	1.7	0.25 J	1.7	0.41 J	1.8	1.2 J	1.0 J	a	-
PCB 056	<0.32	0.56 J	0.43 J	0.42 J	<0.34	0.52 J	<0.32	<0.32	<0.32	<0.31	<0.33	<0.33	<0.34	<0.23	<0.34	<0.25	<0.33	0.37 J	<0.34	a	-
PCB 060	<0.24	<0.23	<0.27	<0.24	<0.26	<0.25	<0.25	<0.24	<0.25	<0.24	<0.25	<0.25	<0.26	<0.17	<0.26	<0.19	<0.25	<0.25	<0.26	a	-
PCB 066	1.2	1.4	0.67 J	0.86 J	0.91 J	1.4	1.4	0.74 J	0.63 J	0.88 J	0.63 J	0.55 J	1.0 J	0.49 J	1.2 J	0.52 J	0.86 J	1.1 J	0.87 J	a	-
PCB 070	1.0 J	1.1	0.76 J	0.87 J	1.1 J	0.94 J	1.3	0.81 J	0.62 J	0.60 J	<0.20	0.44 J	1.1 J	0.29 J	0.91 J	0.46 J	0.91 J	1.0 J	0.77 J	a	-
PCB 074	0.57 J	0.58 J	0.48 J	0.51 J	0.67 J	0.64 J	0.74 J	0.42 J	0.35 J	0.42 J	0.34 J	0.34 J	0.63 J	0.21 J	0.50 J	0.29 J	0.57 J	0.60 J	0.40 J	a	-
PCB 087	0.42 J	0.53 J	0.39 J	0.30 J	0.55 J	0.50 J	0.67 J	0.46 J	0.36 J	<0.22	0.43 J	<0.24	<0.25	0.19 J	0.52 J	<0.18	0.66 J	0.36 J	0.48 J	a	-
PCB 095	1.4	1.7	0.87 J	1.3	1.4	1.1 J	1.5	0.85 J	0.97 J	0.73 J	1.1 J	0.67 J	1.4	0.44 J	1.3	0.47 J	1.5	1.4	1.0 J	a	-
PCB 097	1.0 J	0.76 J	0.48 J	0.95 J	0.87 J	0.80 J	1.2	0.49 J	0.60 J	0.36 J	<0.33	0.39 J	1.3	0.37 J	1.1 J	0.35 J	1.0 J	0.85 J	0.81 J	a	-
PCB 099	1.1 J	1.1	0.69 J	0.90 J	0.91 J	0.87 J	1.0 J	0.68 J	0.62 J	0.62 J	0.61 J	0.45 J	1.3	0.33 J	1.0 J	0.46 J	1.0 J	0.96 J	0.74 J	a	-
PCB 101	1.9	2.2	1.3	1.8	2.0	1.9	2.3	1.3	1.3	1.0 J	1.3	0.78 J	2.0	0.68 J	1.9	0.80 J	1.9	1.8	1.5	a	-
PCB 105	0.72 J	1.2	0.47 J	0.68 J	1.0 J	0.87 J	1.4	0.49 J	0.44 J	0.47 J	0.56 J	0.50 J	1.2 J	0.24 J	0.96 J	0.35 J	0.91 J	0.84 J	0.74 J	a	-
PCB 110	1.7	2.3	1.1 J	1.6	1.7	1.8	2.5	1.1 J	1.1 J	0.89 J	1.3	0.71 J	1.9	0.52 J	1.8	0.77 J	1.8	1.7	1.4	a	-
PCB 118	1.8	2.1	1.2 J	1.7	2.0	2.0	2.3	1.3	1.2	1.1	1.6	0.95 J	2.6	0.57 J	2.0	0.79 J	2.0	2.0	1.6	a	-
PCB 128	<0.24	<0.22	<0.26	0.31 J	<0.25	<0.24	<0.24	0.34 J	<0.24	<0.23	<0.25	<0.24	<0.26	<0.17	<0.26	<0.18	0.64 J	<0.24	<0.25	a	-
PCB 132	<0.38	<0.35	<0.41	<0.38	<0.41	<0.39	<0.39	<0.38	<0.38	<0.37	<0.40	<0.39	<0.41	<0.27	<0.41	<0.30	<0.39	<0.39	<0.41	a	-
PCB 138/158	2.4	2.7	1.7 J	2.2 J	2.3 J	2.4	3.2	1.6 J	1.6 J	1.3 J	1.7 J	0.93 J	2.5	0.73 J	2.5	0.91 J	2.4	2.2 J	2.1 J	a	-
PCB 141	<0.26	0.49 J	0.39 J	0.63 J	<0.27	0.61 J	<0.26	<0.26	<0.26	0.29 J	<0.27	<0.26	<0.28	<0.18	<0.28	<0.20	<0.26	0.48 J	<0.27	a	-
PCB 149	1.6	1.8	0.89 J	1.3	1.6	1.5	1.8	1.0 J	0.97 J	0.90 J	0.99 J	0.67 J	1.4	0.50 J	1.4	0.59 J	1.3	1.6	1.2	a	-
PCB 151	<0.24	0.66 J	<0.26	0.45 J	0.62 J	<0.24	<0.24	0.32 J	<0.24	<0.23	<0.25	<0.25	0.79 J	<0.17	<0.26	<0.19	0.50 J	<0.25	<0.25	a	-
PCB 153	2.6	3.2	1.6	2.2	2.5	2.8	3.4	1.7	1.6	1.4	1.6	1.1 J	2.8	0.86	2.8	1.0	2.6	2.6	2.0	a	-
PCB 156	0.41 J	<0.21	<0.24	0.68 J	<0.24	<0.23	<0.23	<0.23	0.39 J	<0.22	<0.23	<0.23	0.77 J	<0.16	<0.24	<0.18	<0.23	<0.23	0.36 J	a	-
PCB 170	0.86 J	0.97 J	<0.23	0.63 J	0.82 J	0.69 J	0.74 J	0.45 J	0.40 J	0.28 J	0.32 J	0.26 J	0.43 J	0.27 J	0.68 J	0.37 J	0.56 J	0.63 J	0.45 J	a	-
PCB 174	0.55 J	0.70 J	<0.27	0.52 J	<0.26	<0.25	0.94 J	<0.25	0.40 J	<0.24	0.30 J	<0.25	0.61 J	<0.18	0.58 J	<0.19	0.60 J	0.53 J	0.47 J	a	-
PCB 177	0.34 J	<0.26	<0.31	<0.28	<0.30	<0.29	<0.29	<0.28	<0.28	<0.27	<0.30	<0.29	<0.31	<0.20	0.36 J	<0.22	0.30 J	0.38 J	<0.30	a	-
PCB 180	1.3	1.5	0.82 J	1.0 J	1.4	1.4	1.9	1.1 J	0.92 J	0.70 J	0.88 J	0.52 J	1.5	0.45 J	1.5	0.49 J	1.4	1.3	1.0 J	a	-
PCB 183	0.32 J	<0.24	<0.28	0.32 J	0.28 J	<0.26	0.44 J	<0.26	<0.26	<0.25	<0.27	<0.26	0.32 J	<0.18	0.35 J	<0.20	0.35 J	0.35 J	0.34 J	a	-
PCB 187	0.87 J	1.0 J	0.56 J	0.82 J	0.79 J	0.86 J	1.1 J	0.51 J	0.52 J	0.50 J	0.63 J	0.36 J	0.91 J	0.29 J	0.96 J	0.35 J	0.88 J	0.93 J	0.65 J	a	-
PCB 194	<0.22	<0.20	<0.24	<0.22	<0.23	<0.22	0.94 J	<0.22	<0.22	<0.21	<0.23	<0.23	<0.24	<0.16	<0.24	<0.17	<0.23	<0.23	<0.23	a	-
PCB 195	<0.12	<0.11	<0.13	<0.12	<0.13	<0.12	<0.12	<0.12	<0.12	<0.12	<0.13	<0.12	<0.13	<0.087	<0.13	<0.095	<0.13	<0.13	<0.13	a	-
PCB 201	<0.13	<0.12	<0.14	<0.13	<0.14	<0.13	<0.13	<0.13	<0.13	<0.13	<0.14	<0.13	<0.14	<0.094	<0.14	<0.10	<0.14	<0.14	<0.14	a	-
PCB 203	<0.25	<0.23	<0.27	<0.25	<0.26	<0.25	<0.25	<0.25	<0.25	<0.24	<0.26	<0.25	<0.27	<0.18	<0.27	<0.19	<0.26	<0.26	<0.26	a	-
Total PCBs	28.36	34.25	18.74	28.15	27.71	30.29	36.58	19.43	18.16	14.67	17.52	12.21	31.85	8.62	29.73	10.94	30.7	29.04	22.86	22.7, 29.3 ^c , 17.0 ^d	<MDL

a - No reference value has been established for the individual congeners; the Total Detected PCB congener reference value (SFRWQCB 1998) is used as a default value.

b - SFRWQCB 1998

c - San Francisco Bay 99th percentile PCB concentration (SFRWQCB 2013).

d - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

J - Analyte was detected at a concentration below the MRL and above the MDL, and therefore is an estimate.

All results below laboratory method detection limit (MDL) are reported as < the MDL.

Table 5. Phillips 66 Richmond Marine Terminal Sediment Organochlorine Pesticide Concentrations (µg/kg, dry wt).

Organochlorine Pesticides	P66-01	P66-01-Z	P66-02	P66-02-Z	P66-03	P66-03-Z	P66-04	P66-04-Z	P66-05	P66-05-Z	P66-06	P66-06-Z	P66-07	P66-07-Z	P66-08	P66-08-Z	P66-09	P66-09-Z	P66-COMP	Bay Ambient <100% Fines ^b	SF-DODs Database
Aldrin	<0.72	<0.67	<0.79	<0.72	<0.77	<0.74	<0.73	<0.73	<0.73	<0.70	<0.75	<0.75	<0.78	<0.52	<0.78	<0.56	<0.75	<0.75	<0.77	1.1	-
alpha-BHC	<0.74	<0.69	<0.81	<0.74	<0.80	<0.76	<0.76	<0.75	<0.75	<0.72	<0.78	<0.77	<0.81	<0.53	<0.81	<0.58	<0.77	<0.77	<0.79	-	-
beta-BHC	<0.61	<0.56	<0.66	<0.61	<0.65	<0.62	<0.62	<0.61	<0.61	<0.59	<0.63	<0.63	<0.66	<0.44	<0.66	<0.47	<0.63	<0.63	<0.65	-	-
delta-BHC	<0.59	<0.54	<0.64	<0.59	<0.63	<0.60	<0.60	<0.59	<0.59	<0.57	<0.61	<0.61	<0.64	<0.42	<0.64	<0.46	<0.61	<0.61	<0.63	-	-
gamma-BHC (Lindane)	<0.80	<0.74	<0.87	<0.80	<0.85	<0.81	<0.81	<0.80	<0.80	<0.77	<0.83	<0.82	<0.86	<0.57	<0.86	<0.62	<0.82	<0.82	<0.85	-	-
Total Detected BHCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.78, 0.99 ^a	-
Chlordane	<7.5	<7.0	<8.2	<7.5	<8.0	<7.7	<7.6	<7.5	<7.5	<7.3	<7.8	<7.7	<8.1	<5.4	<8.1	<5.9	<7.8	<7.8	<8.0	1.1, 37 ^b	-
Dieldrin	0.97 J	1.1 J	0.85 J	<0.76	<0.81	1.0 J	1.0 J	1.0 J	<0.76	0.93 J	<0.79	<0.78	<0.82	<0.54	<0.82	0.62 J	0.81 J	<0.78	<0.81	0.44, 0.72 ^a , 1.9 ^b	-
Endosulfan I	<0.60	<0.56	<0.66	<0.60	<0.64	<0.62	<0.61	<0.60	<0.61	<0.58	<0.63	<0.62	<0.65	<0.43	<0.65	<0.47	<0.62	<0.62	<0.64	-	-
Endosulfan II	<0.64	<0.59	<0.70	<0.64	<0.69	<0.66	<0.65	<0.64	<0.65	<0.62	<0.67	<0.66	<0.70	<0.46	<0.70	<0.50	<0.66	<0.66	<0.68	-	-
Endosulfan Sulfate	<0.78	<0.72	<0.84	<0.78	<0.83	<0.80	<0.79	<0.78	<0.78	<0.75	<0.81	<0.80	<0.84	<0.56	<0.84	<0.61	<0.80	<0.80	<0.83	-	-
Endrin	<0.82	<0.76	<0.90	<0.82	<0.88	<0.84	<0.84	<0.83	<0.83	<0.80	<0.86	<0.85	<0.89	<0.59	<0.89	<0.64	<0.85	<0.85	<0.88	0.78	-
Endrin Aldehyde	<0.56	<0.52	<0.61	<0.56	<0.60	<0.57	<0.57	<0.56	<0.56	<0.54	<0.59	<0.58	<0.61	<0.40	<0.61	<0.44	<0.58	<0.58	<0.60	-	-
Heptachlor	<0.74	<0.68	<0.80	<0.74	<0.79	<0.76	<0.75	<0.74	<0.74	<0.72	<0.77	<0.76	<0.80	<0.53	<0.80	<0.58	<0.76	<0.76	<0.79	-	-
Heptachlor Epoxide	1.5 J	<0.76	1.3 J	<0.82	<0.87	<0.84	<0.83	<0.82	<0.82	<0.79	<0.85	<0.84	<0.88	<0.59	<0.89	<0.64	<0.84	<0.84	<0.87	-	-
Toxaphene	<15	<13	<16	<15	<16	<15	<15	<15	<15	<14	<15	<15	<16	<10	<16	<11	<15	<15	<16	-	-
2,4'-DDD	4.3	3.3	2.8	2.7	1.4 J	3.7	1.8 J	4.4	1.2 J	3.9	<0.81	1.5 J	<0.84	2.7	0.96 J	2.6	2.9	2.7	1.5 J	-	-
4,4'-DDD	18	15	12	11	6.7	17	9.1	21	6.6	19	2.4	5.9	3.4	14	5.3	12	14	13	8.4	-	-
2,4'-DDE	<0.70	<0.65	<0.76	<0.70	<0.75	<0.72	<0.71	<0.70	<0.71	<0.68	<0.73	<0.72	<0.76	<0.50	<0.76	160	<0.73	35 E	<0.75	-	-
4,4'-DDE	4.3	4.2	3.5	2.7	2.3 J	4.1	2.7	5.0	1.8 J	4.0	0.91 J	1.7 J	1.3 J	2.0	1.3 J	2.7	2.3 J	2.2 J	2.5	-	-
2,4'-DDT	<0.69	<0.64	<0.75	<0.69	<0.74	<0.71	<0.70	<0.69	<0.69	<0.67	<0.72	<0.71	<0.75	<0.50	<0.75	<0.54	<0.71	<0.71	<0.74	-	-
4,4'-DDT	3.7	6.7	3.5	2.4	1.5 J	3.9	3.2	2.3 J	1.9 J	3.0	<0.80	1.2 J	0.93 J	0.64 J	3.0	0.97 J	1.1 J	2.7	3.7	-	-
Total Detected DDTs	30.3	29.2	21.8	18.8	11.9	28.7	16.8	32.7	11.5	29.9	3.31	10.3	5.63	19.34	10.56	178	20.3	55.6	16.1	7.0 ^a , 50 ^b	not detected

a - CRRP screening concentration (USFWS 2010). It should be noted that the total BHC screening concentration was based on the PEL(McDonald et al 1996) for gamma-BHC (Lindane).

b - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

c - SFRWQCB 1998

J - Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit; the reported value is therefore an estimate.

All results below the MDL are reported as < the MDL.

Table 6. Phillips 66 Richmond Marine Terminal Sediment PAH Concentrations
(µg/kg, dry wt).

PAHs	P66-Comp	Bay Ambient <100% Fines ^f	SF-DODs Database
Acenaphthene ^a	18 J	26.6	-
Acenaphthylene ^a	18 J	31.7	-
Anthracene ^a	49	88	-
Benzo(a)anthracene ^b	95	244	-
Benzo(a)pyrene ^b	180	412	-
Benzo(b)fluoranthene ^b	160	371	-
Benzo(e)pyrene ^c	140	294	-
Benzo(g,h,i)perylene ^b	140	310	-
Benzo(k)fluoranthene ^b	150	258	-
Biphenyl ^c	11 J	12.9	-
Chrysene ^b	150	289	-
Dibenzo(a,h)anthracene ^b	27	32.7	-
2,6-Dimethylnaphthalene ^c	55	12.1	-
Fluoranthene ^b	140	514	-
Fluorene ^a	24 J	25.3	-
Indeno(1,2,3-c,d)pyrene ^b	110	382	-
2-Methylnaphthalene ^c	14 J	19.4	-
1-Methylnaphthalene ^c	9.5 J	12.1	-
1-Methylphenanthrene ^c	<4.0	31.7	-
Naphthalene ^a	24 J	55.8	-
Perylene ^c	99	145	-
Phenanthrene ^a	74	237	-
Pyrene ^b	280	665	-
1,6,7-Trimethylnaphthalene ^c	3.7 J	-	-
Dibenzothiophene ^c	9.6 J	-	-
Total SF-DODS LPAH^a	207	-	≤77
Total SF-DODS HPAH^b	1,432	-	≤115
Total SF-DODS PAHs	1,639	-	≤192
Total Detected PAHs	1,981	3390^d, 4800^e	-

a - SF-DODS Low molecular weight PAH (LPAH).

b - SF-DODS High molecular weight PAH (HPAH).

c - San Francisco Bay additional RMP PAHs (USACE/USEPA 2011).

d - San Francisco Bay ambient PAH Level (SFRWQCB 1998).

e - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

f - SFRWQCB 1998

J - Analyte was detected at a concentration below the MRL and above the MDL, and therefore is an estimate.

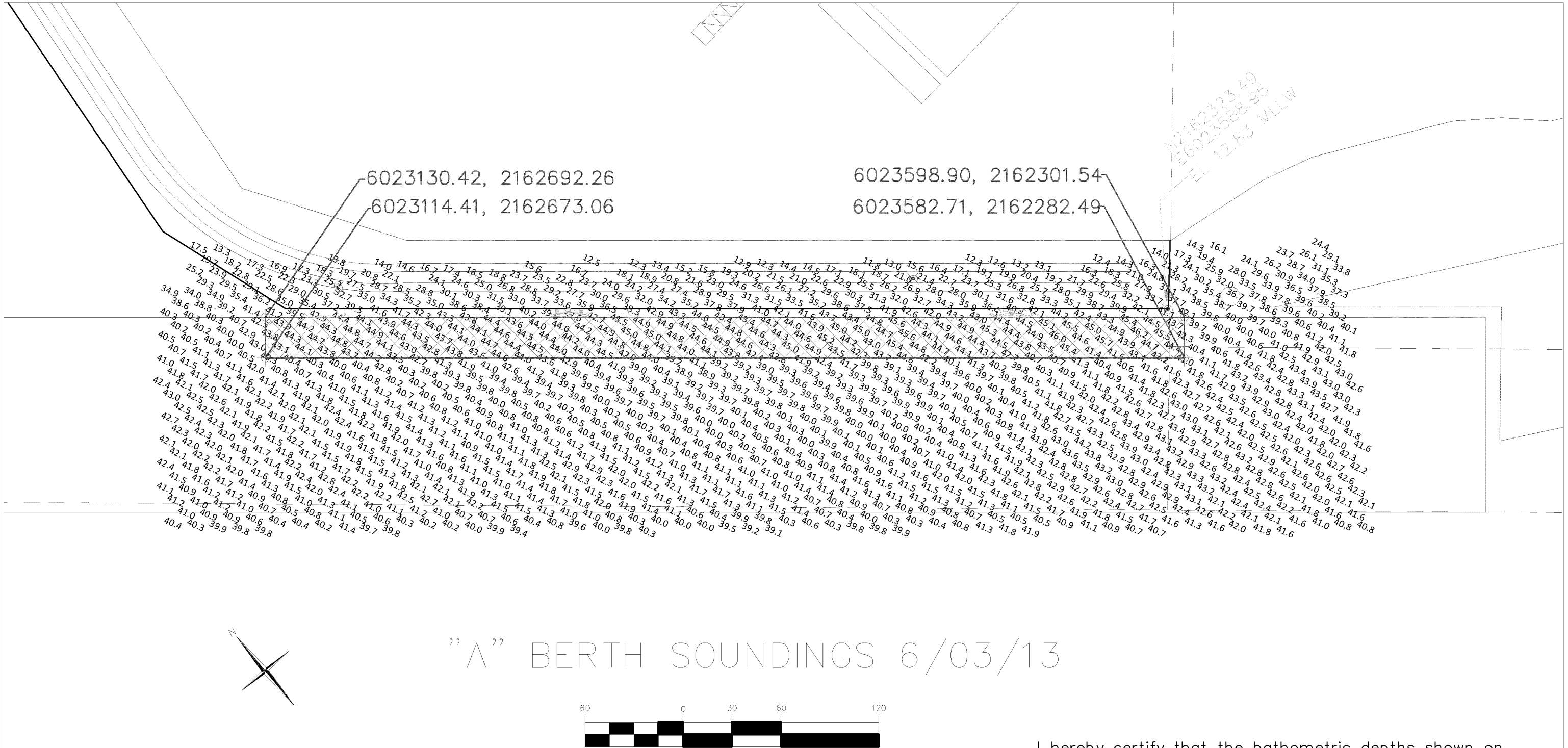
Table 7. Phillips 66 Richmond Marine Terminal Sediment Dioxin Concentrations
($\mu\text{g/kg}$, dry wt).

Analyte	P66-Comp	Bay Ambient <100 % Fines ^c	SF-DODs Database
Dioxins (as Total TCDD TEQ)	0.00238	0.01 ^a , 0.02 ^b	-

a - San Francisco Bay Bioaccumulation Trigger Level (USACE/USEPA 2011, SFEI 2013).

b - CRRP dioxin (total TCDD TEQ) screening concentration (USFWS 2010).

c - SFRWQCB 1998



"A" BERTH SOUNDINGS 6/03/13



TRENCH DREDGED TO -44' +1
MLLW = 3,143 yds • dredged

I hereby certify that the bathometric depths shown on this document are the true depths sent to me by e-Track Engineering for the survey taken on 6/03/2013. I have rotated the drawing for clarity. I also hatched the drawing to indicate the area that was dredged.

Dated: 6/06/2013

Jim Cannon

To: thompson, rachel[thompson.rachelle@epa.gov]
Cc: Scianni, Melissa[Scianni.Melissa@epa.gov]
From: Ross, Brian
Sent: Thur 5/30/2013 3:05:06 PM
Subject: FW: Levin dredging schedule
Levin dredging schedule

Uh oh, now Melissa is passing along Debra's mis-spelling of your address!
;-)

Brian D. Ross

EPA Region 9, WTR-8

Dredging & Sediment Management Team

75 Hawthorne Street

San Francisco, CA 94105

415-972-3475

Fax 947-3537

Advice from a very wise ecologist:

"The key to sanity is to not take anything personally & just stay in plankton mode....."

*** EPA cannot accept email attachments totaling greater than 25 MB.**

Please call me in advance if you need to send me files that exceed 25 MB.

To: brendag@bcdcc.ca.gov[brendag@bcdcc.ca.gov]; Christian, Elizabeth@Waterboards[Elizabeth.Christian@waterboards.ca.gov]
Cc: O'Leary, Debra A SPN[Debra.A.O'Leary@usace.army.mil]; Ross, Brian[Ross.Brian@epa.gov]; Jim Cannon[jimc@levinterminal.com]; James Holland[jimh@levinterminal.com]; thompson.rachalle@epa.gov[thompson.rachalle@epa.gov]
From: Scianni, Melissa
Sent: Wed 5/29/2013 10:06:02 PM
Subject: Levin dredging schedule

Hi Beth and Brenda,

I wanted to give you an update on the Levin dredging schedule. EPA, Corps, and Levin had a conference call this afternoon to work out the potential conflicts between planned EPA activities in the channel and proposed dredging activities. Here is what was agreed to:

1. There is no conflict between Dutra starting dredging June 1 and EPA activities. EPA understands that it will only take a few days for Dutra to complete the actual dredging.

2. Dutra will be dredging into two barges, which will be parked in Berth B for offloading over the next few weeks. Levin also has two other ships that will be coming into Berth B during June. There is a potential conflict between EPA activities and ships moving in and out of Berth B during June. EPA Superfund staff and Levin will coordinate their schedules to allow EPA access to the Levin Berth.

Hopefully this is adequate for you to move forward with approving the DOP. Please let me know if you have any questions for EPA.

Thanks,

Melissa

Melissa Scianni

Wetlands Office

US EPA, Region 9

75 Hawthorne St, WTR-8

San Francisco, CA 94105

(415) 972-3821

scianni.melissa@epa.gov

To: brendag@bcdcc.ca.gov[brendag@bcdcc.ca.gov]; Christian, Elizabeth@Waterboards[Elizabeth.Christian@waterboards.ca.gov]
Cc: O'Leary, Debra A SPN[Debra.A.O'Leary@usace.army.mil]; Ross, Brian[Ross.Brian@epa.gov]; Jim Cannon[jimc@levinterminal.com]; James Holland[jimh@levinterminal.com]; thompson.rachalle@epa.gov[thompson.rachalle@epa.gov]
From: Scianni, Melissa
Sent: Wed 5/29/2013 10:06:02 PM
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Thanks,

Melissa

Melissa Scianni

Wetlands Office

US EPA, Region 9

75 Hawthorne St, WTR-8

San Francisco, CA 94105

(415) 972-3821

scianni.melissa@epa.gov

To: Christian, Elizabeth@Waterboards[Elizabeth.Christian@waterboards.ca.gov]; Ross, Brian[Ross.Brian@epa.gov]
From: Scianni, Melissa
Sent: Wed 5/29/2013 7:49:51 PM
Subject: RE: status of Levin Terminal Richmond DOP

Thanks for the update Beth. If you were to get the EPA/Levin agreed upon schedule this afternoon, would you be able to approve the DOP this week? We're just trying to figure out if it's feasible for them start on June 1.

Thanks again!

M

Melissa Scianni

Wetlands Office

US EPA, Region 9

75 Hawthorne St, WTR-8

San Francisco, CA 94105

(415) 972-3821

scianni.melissa@epa.gov

From: Christian, Elizabeth@Waterboards [mailto:Elizabeth.Christian@waterboards.ca.gov]
Sent: Wednesday, May 29, 2013 12:45 PM
To: Ross, Brian; Scianni, Melissa
Subject: FW: status of Levin Terminal Richmond DOP

I told Jim Cannon of LRT that I can't approve the DOP until LRT works out its dredging schedule with EPA Superfund staff (see highlighted text below). He didn't acknowledge the situation in his response to me, so I don't know what's going on.

From: Jim Cannon [<mailto:jimc@levinterminal.com>]
Sent: Thursday, May 23, 2013 9:32 AM
To: Christian, Elizabeth@Waterboards
Cc: Gary Levin; Gary Levin (garymlevin@aol.com); James Holland
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Beth, yes the material vacuumed from the tarps will be placed in the containment area and disposed-of in the same way. Dutra will be operating their own equipment for the dredging operation and transferring the barge to b berth for us to use our own crane and clamshell bucket from the barge to the drying pad. Yes, our people have had many years experience operating both the crane and clamshell bucket.

Jim

From: Christian, Elizabeth@Waterboards [<mailto:Elizabeth.Christian@waterboards.ca.gov>]
Sent: Wednesday, May 22, 2013 4:58 PM
To: Jim Cannon
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Hi Jim,

Thanks for the drawing. That's what I thought the transfer operation would look like. One more nit to pick - all spilled material vacuumed from the tarps will be placed in the containment area with the rest of the dredged material, right? Your message didn't say where it would go after vacuuming, but I assume the intent is to dump it in the containment cell.

I'm very close to being able to approve the dredging episode except for a couple of things that came up at the DMMO meeting today. EPA said that the Superfund Program is scheduled to sample in the Lauritzen Canal at about the same time that the DOP shows that you'll be dredging Berth A and offloading at Berth B (though the DOP shows a whole month for the episode, and the actual dredging/offloading will only take a few days at most). EPA doesn't want the barge and tug moving in and out of Berth B while it's trying to sample. Not only will the equipment be in the way, but it could also stir up contaminated sediment that would bias the samples. According to EPA, it's possible that if you could get in and out quickly within the first week of June, EPA can delay its sampling event so that the two projects don't overlap. EPA wants the

permitting agencies to hold off approving the DOP and dredging episode until the scheduling snafu is resolved. I hope someone from LRT is actively working with EPA Superfund staff on this. The schedule in the DOP will probably need to be revised to reflect the result of this negotiation. Also at the DMMO meeting, we discussed who will actually be doing the dredging and who should be therefore be signing and submitting the DOP. Will LRT personnel be doing the dredging using equipment rented from Dutra? If so, does LRT have experience operating a clamshell bucket and dredging contaminated sediment with minimum resuspension? I was hoping to quickly deal with these issues over the phone, but I got your voicemail and didn't want to leave a long message.

If it's too burdensome to reply via email, you can call me at (510) 622-2335.

Beth

From: Jim Cannon [<mailto:jimc@levinterminal.com>]
Sent: Wednesday, May 22, 2013 3:07 PM
To: Christian, Elizabeth@Waterboards; Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; brendag@bcdcc.ca.gov
Cc: James Holland; Gary Levin; Pat O'Driscoll
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Sorry about that, I forgot to attach the drawing.

Jim

From: Jim Cannon
Sent: Wednesday, May 22, 2013 10:31 AM
To: 'Christian, Elizabeth@Waterboards'; 'Oriana Duranczyk'; 'Debra.A.O'leary@usace.army.mil'; 'brendag@bcdcc.ca.gov'
Cc: James Holland; Gary Levin; Pat O'Driscoll
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Hi All: here is the drawing reflecting what we plan to do to control spillage from the transfer operation. The material on the tarps will be removed by vacuum every day of the operation to ensure no liquid or solids re-enter the Channel waters.

Jim

From: Jim Cannon

Sent: Monday, May 20, 2013 3:27 PM

To: 'Christian, Elizabeth@Waterboards'; Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; brendag@bcdcc.ca.gov

Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Hi Beth, I was also confused by the "bracket" reference. This came from the original disposal plan from Berth 10 at Oakland where they had a bracket to aid in spillage. I will send a new drawing to everyone that will hopefully explain what we plan to do.

Jim

From: Christian, Elizabeth@Waterboards [<mailto:Elizabeth.Christian@waterboards.ca.gov>]

Sent: Monday, May 20, 2013 9:25 AM

To: Jim Cannon; Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; brendag@bcdcc.ca.gov

Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Hi Jim,

On the last page of the DOP, in the section titled 10) Storm Water Runoff Plan, there's a description of a "Berth B Runoff Containment & Offloading Containment Bracket" with a reference to an attached drawing. I can't seem to find the drawing in the DOP. There's a photograph titled Berth B Disposal Offloading, but I don't see a "bracket" in it. I can't figure out how the bracket is supposed to work from the description in the DOP. Is it possible to send a drawing and provide some additional explanation. Thanks.

Beth

Elizabeth Christian

Water Resource Control Engineer

e-mail address: echristian@waterboards.ca.gov

Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400

Oakland, CA 94612

(510) 622-2335

From: Jim Cannon [<mailto:jimc@levinterminal.com>]

Sent: Friday, May 17, 2013 3:33 PM

To: Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; Christian, Elizabeth@Waterboards;
brendag@bcdcc.ca.gov

Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Thank you Oriana. If anyone has any questions, please call or e-mail me.

Jim

From: Oriana Duranczyk [<mailto:Oriana@dutragroup.com>]

Sent: Friday, May 17, 2013 3:29 PM

To: Debra.A.O'leary@usace.army.mil; Beth Christian (echristian@waterboards.ca.gov);
brendag@bcdcc.ca.gov

Cc: Jim Cannon

Subject: Dredging Operations Plan for Levin Terminals Richmond

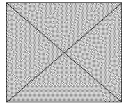
All,

Attached is an electronic copy of our Operations Plan for Dredging at Levin Terminals in Richmond, CA

Hard Copies to follow in the mail.

Have a lovely weekend,

Oriana Duranczyk



(415) 259-7458 - cell

(415) 257-8662 - office

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Email message contained an attachment named image001.jpg which may be a
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correct name. For further information, please contact the EPA Call Center
at (866) 411-4EPA (4372). The TDD number is (866) 489-
4900. ***** ATTACHMENT NOT DELIVERED *****

To: Ross, Brian[Ross.Brian@epa.gov]; Scianni, Melissa[Scianni.Melissa@epa.gov]
From: Christian, Elizabeth@Waterboards
Sent: Wed 5/29/2013 7:45:17 PM
Subject: FW: status of Levin Terminal Richmond DOP

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Sent: Thursday, May 23, 2013 9:32 AM
To: Christian, Elizabeth@Waterboards
Cc: Gary Levin; Gary Levin (garymlevin@aol.com); James Holland
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

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Sent: Wednesday, May 22, 2013 4:58 PM
To: Jim Cannon
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

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Beth

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Sent: Wednesday, May 22, 2013 3:07 PM
To: Christian, Elizabeth@Waterboards; Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; brendag@bcdca.gov
Cc: James Holland; Gary Levin; Pat O'Driscoll
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Sorry about that, I forgot to attach the drawing.

Jim

From: Jim Cannon
Sent: Wednesday, May 22, 2013 10:31 AM
To: 'Christian, Elizabeth@Waterboards'; 'Oriana Duranczyk'; 'Debra.A.O'leary@usace.army.mil'; 'brendag@bcdca.gov'

Cc: James Holland; Gary Levin; Pat O'Driscoll
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Hi All: here is the drawing reflecting what we plan to do to control spillage from the transfer operation. The material on the tarps will be removed by vacuum every day of the operation to ensure no liquid or solids re-enter the Channel waters.

Jim

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Sent: Monday, May 20, 2013 9:25 AM
To: Jim Cannon; Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; brendag@bcdcc.ca.gov
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

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Elizabeth Christian

Water Resource Control Engineer

e-mail address: echristian@waterboards.ca.gov

Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400

Oakland, CA 94612

(510) 622-2335

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Sent: Friday, May 17, 2013 3:33 PM

To: Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; Christian, Elizabeth@Waterboards;
brendag@bcdcc.ca.gov

Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Thank you Oriana. If anyone has any questions, please call or e-mail me.

Jim

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Sent: Friday, May 17, 2013 3:29 PM

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brendag@bcdcc.ca.gov

Cc: Jim Cannon

Subject: Dredging Operations Plan for Levin Terminals Richmond

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***** ATTACHMENT NOT DELIVERED *****

To: thompson, rachel[e]thompson.rachel[e]epa.gov]
Cc: Scianni, Melissa[Scianni.Melissa@epa.gov]
From: Ross, Brian
Sent: Thur 5/23/2013 6:20:23 PM
Subject: FW: Dredging Operations Plan for Levin Terminals Richmond
[image001.jpg](#)

Hi Rachelle,

Discussed the timing conflict with the permitting agencies at DMMO yesterday, since they are all also looking at the DOP at the same time. Advised them we will know more after our conference call with Levin next week.

Here is some correspondence between Levin and RWQCB...

From: Christian, Elizabeth@Waterboards [Elizabeth.Christian@waterboards.ca.gov]
Sent: Thursday, May 23, 2013 11:03 AM
To: Debra A SPN O'Leary (Debra.A.O'Leary@usace.army.mil); Brenda Goeden (BrendaG@bcd.ca.gov); Ross, Brian
Subject: FW: Dredging Operations Plan for Levin Terminals Richmond

I'm forwarding this because I thought you would be interested in his answer to my question about who would be operating equipment (Dutra for the dredging and LRT for the offloading). That separation of duties seems reasonable to me.

Jim didn't respond to my questions about the scheduling conflict with EPA Superfund sampling, so I guess we'll have to wait a while longer to see if LRT can work something out that's acceptable to EPA.

From: Jim Cannon [mailto:jimc@levinterminal.com]
Sent: Thursday, May 23, 2013 9:32 AM
To: Christian, Elizabeth@Waterboards
Cc: Gary Levin; Gary Levin (garymlevin@aol.com); James Holland
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Beth, yes the material vacuumed from the tarps will be placed in the containment area and disposed-of in the same way. Dutra will be operating their own equipment for the dredging operation and transferring the barge to b berth for us to use our own crane and clamshell bucket from the barge to the drying pad. Yes, our people have had many years experience operating both the crane and clamshell bucket.

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Sent: Wednesday, May 22, 2013 4:58 PM
To: Jim Cannon
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

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If it's too burdensome to reply via email, you can call me at (510) 622-2335.

Beth

From: Jim Cannon [<mailto:jimc@levinterminal.com>]
Sent: Wednesday, May 22, 2013 3:07 PM
To: Christian, Elizabeth@Waterboards; Oriana Duranczyk; Debra.A.O'leary@usace.army.mil;
brendag@bcdcc.ca.gov
Cc: James Holland; Gary Levin; Pat O'Driscoll
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

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Sent: Wednesday, May 22, 2013 10:31 AM
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Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

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Beth

Elizabeth Christian

Water Resource Control Engineer

e-mail address: echristian@waterboards.ca.gov

Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400

Oakland, CA 94612

(510) 622-2335

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Sent: Friday, May 17, 2013 3:33 PM
To: Oriana Duranczyk; Debra.A.O'leary@usace.army.mil; Christian, Elizabeth@Waterboards;

brendag@bcdcc.ca.gov

Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Thank you Oriana. If anyone has any questions, please call or e-mail me.

Jim

From: Oriana Duranczyk [<mailto:Oriana@dustragroup.com>]

Sent: Friday, May 17, 2013 3:29 PM

To: Debra.A.O'leary@usace.army.mil; Beth Christian (echristian@waterboards.ca.gov); brendag@bcdcc.ca.gov

Cc: Jim Cannon

Subject: Dredging Operations Plan for Levin Terminals Richmond

All,

Attached is an electronic copy of our Operations Plan for Dredging at Levin Terminals in Richmond, CA

Hard Copies to follow in the mail.

Have a lovely weekend,

Oriana Duranczyk

(415) 259-7458 - cell

(415) 257-8662 - office

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***** ATTACHMENT NOT DELIVERED *****

To: Debra A SPN O'Leary (Debra.A.O'Leary@usace.army.mil)[Debra.A.O'Leary@usace.army.mil]; Brenda Goeden (BrendaG@bcdca.gov)[BrendaG@bcdca.gov]; Ross, Brian[Ross.Brian@epa.gov]
From: Christian, Elizabeth@Waterboards
Sent: Thur 5/23/2013 6:03:53 PM
Subject: FW: Dredging Operations Plan for Levin Terminals Richmond

I'm forwarding this because I thought you would be interested in his answer to my question about who would be operating equipment (Dutra for the dredging and LRT for the offloading). That separation of duties seems reasonable to me.

Jim didn't respond to my questions about the scheduling conflict with EPA Superfund sampling, so I guess we'll have to wait a while longer to see if LRT can work something out that's acceptable to EPA.

From: Jim Cannon [mailto:jimc@levinterminal.com]
Sent: Thursday, May 23, 2013 9:32 AM
To: Christian, Elizabeth@Waterboards
Cc: Gary Levin; Gary Levin (garymlevin@aol.com); James Holland
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

Beth, yes the material vacuumed from the tarps will be placed in the containment area and disposed-of in the same way. Dutra will be operating their own equipment for the dredging operation and transferring the barge to b berth for us to use our own crane and clamshell bucket from the barge to the drying pad. Yes, our people have had many years experience operating both the crane and clamshell bucket.

Jim

From: Christian, Elizabeth@Waterboards [mailto:Elizabeth.Christian@waterboards.ca.gov]
Sent: Wednesday, May 22, 2013 4:58 PM
To: Jim Cannon
Subject: RE: Dredging Operations Plan for Levin Terminals Richmond

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Thank you Oriana. If anyone has any questions, please call or e-mail me.

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To: thompson, rachel[e]thompson.rachelle@epa.gov]
From: Ross, Brian
Sent: Tue 5/21/2013 5:55:22 PM
Subject: Dredging Operations Plan for Levin Terminals Richmond
LRTC Dredging Operations Plan fy13 R1.pdf
A BERTH TRENCH and ADVANCED MAINT DREDGE 4-23-13 eTRACK-Model.pdf

Here's the correct attachment! Sheesh! ;-)

Brian D. Ross
EPA Region 9, WTR-8
Dredging & Sediment Management Team
75 Hawthorne Street
San Francisco, CA 94105
415-972-3475
Fax 947-3537

Advice from a very wise ecologist:
"The key to sanity is to not take anything personally & just stay in plankton mode....."

* EPA cannot accept email attachments totaling greater than 25 MB.
Please call me in advance if you need to send me files that exceed 25 MB.

-----Original Message-----
From: O'Leary, Debra A SPN [mailto:Debra.A.O'Leary@usace.army.mil]
Sent: Friday, May 17, 2013 5:20 PM
To: Scianni, Melissa
Cc: Ross, Brian
Subject: FW: Dredging Operations Plan for Levin Terminals Richmond (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Hi Melissa,

I just got this DOP for dredging the trench at Levin terminal. They are requesting to dispose of 3,600 cy of sediment at SF-DODS.
Does EPA concur with this proposed disposal?

-Debra

-----Original Message-----
From: Oriana Duranczyk [mailto:Oriana@dutragroup.com]
Sent: Friday, May 17, 2013 3:29 PM
To: O'Leary, Debra A SPN; Beth Christian (echristian@waterboards.ca.gov); brendag@bcd.ca.gov
Cc: Jim Cannon (jimc@levinterminal.com)
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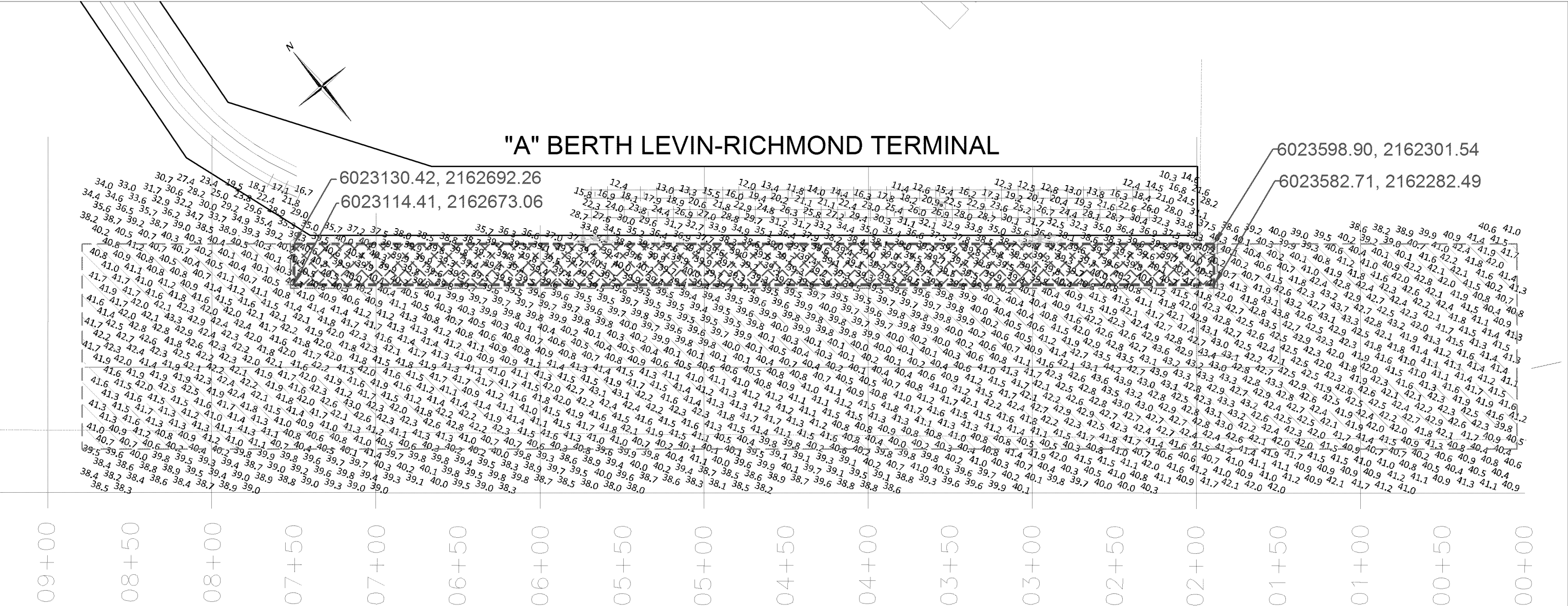
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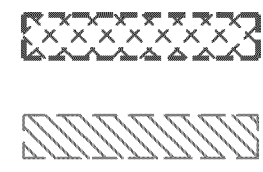
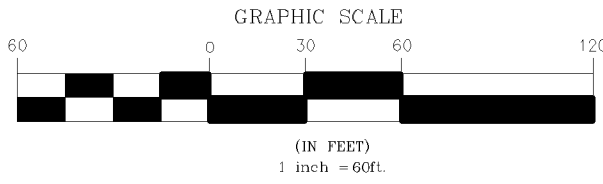
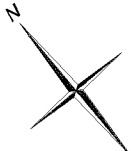
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C:\Users\jlm\My Documents\2009SURVEYS\A BERTH TRENCH and ADVANCED MAINT DREDGE 4-23-13.eTRACK.dwg, 5/9/2013 11:30:57 AM, ANSI expand B (17.00 x 11.00 inches), 1:60



"A" BERTH SOUNDINGS 4/16 /13



I hereby certify that the bathymetric depths shown on this document are the true depths sent to me by E-Track Engineering on 4/16/2013. I have rotated the drawing for clarity. I also hatched the drawing and calculated the volumes from in the hatched area.

Dated: 4/23/2013 

**LEVIN RICHMOND TERMINAL CORP.
MAINTENANCE DREDGING – FY13
RICHMOND, CA**

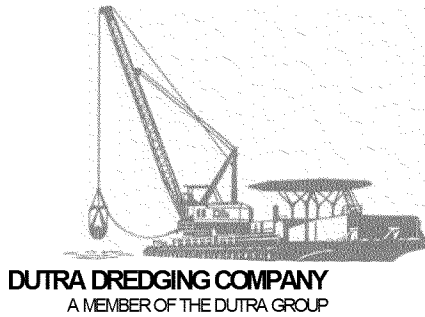
**DREDGE (Berth A - Advance Maintenance Trench) & DISPOSAL (Berth B)
PERMIT 2008-00399S, EPISODE #3
SUBMISSION May, 2013**



SUBMITTED BY:

D THE DUTRA DREDGING COMPANY

A MEMBER OF THE DUTRA GROUP



May 6, 2013

Serial-LRTC-FY11-01

Attention: **Debra O'Leary - DMMO**
Operations and Readiness Division
U.S. Army Corps of Engineers, San Francisco District
1455 Market Street
San Francisco, CA 94103

Re: **Levin Richmond Terminal Corp**
Maintenance Dredging FY13
LRT Berth A - Advance Maintenance Trench
COE-SF Permit #2008-00399S, BCDC Permit M82-7
Dredge & Disposal (Berth B) Plan – Episode #3

Dear Ms. O'Leary;

On behalf of the Levin Richmond Terminal Corp and pursuant to COE-SF Permit #2008-00399S & BCDC Permit M82-7, Special Conditions, the Dutra Dredging Company submits the enclosed document containing the Dredge & Disposal (Berth B) Plan for the Levin Richmond Terminal Episode #3 Dredging.

If you have any questions regarding the enclosed submittals, please contact our office at (415) 455-8031 or my cell phone (415) 254-4443.

Sincerely,
The Dutra Dredging Company

John A. Krause
Division Manager

cc: Jim Cannon, LRTC

LEVIN RICHMOND TERMINAL CORP.
MAINTENANCE DREDGING – FY13
RICHMOND, CA

DREDGE & DISPOSAL (Upland Berth B)

PERMIT 2008-00399S, EPISODE #3

Submitted on May, 2013

DREDGING OPERATION PLAN

The Dutra Dredging Company has been contracted by the Levin Richmond Terminal to perform maintenance dredging operations at their **LRT Berth A**. In addition to the plan laid out here, Dutra Dredging will strictly adhere to all the issues permits for the project. General contract information is as follows:

1) GENERAL PROJECT INFORMATION

PROJECT ITEMS	Dredging of LTRC
CONTRACT NUMBER	
NOTICE TO PROCEED	November 10, 2011
AWARDED CONTRACT AMOUNT	
CORPS PERMIT NUMBER	2008-00399S
PREVIOUS EPISODE START DATE	June 3, 2010
PREVIOUS EPISODE END DATE	June 5, 2010
EPISODE NUMBER	#3
EPISODE START DATE	June 1, 2013
EPISODE COMPLETION DATE	July 1, 2013
TYPE OF DREDGE WORK	Maintenance
QUANTITY OF MATERIAL THIS EPISODE	3,600 CY
DISPOSAL SITE	LRTC Berth B
DESIGN DEPTH	-45.0 + 0'
DESIGN ENGINEER	LRTC
CONTACTOR / SUB-CONTRACTORS	Dutra Dredging Company

2) DREDGE QUANTITIES – The LRTC has performed a Pre-dredge survey of **Berths A**. The dredge volume calculations are as follows: (see attached Before Dredge Survey)

DREDGE QUANTITIES Total volume dredged has been estimated at 3,600cy. Dredge Area will be re-surveyed prior to the startup dredging operations. Volume calculations will be based on the Pre-Dredge Survey.

BERTH AREAS	DREDGE DEPTH (MLLW)	EPISODE NO.	DISPOSAL AREA	ADV MAIN GRADE	SLOPE	TOTAL (cy)
Berth A (Advance Maintenance Trench)	-45.0 +0'	1	Upland Berth B	3,140	460	3,600
Totals				3,140	460	3,600

We are seeking to start dredging and disposal operations June 1st, 2013 and upon approval of the Dredge Operations Plan (See Pre-Dredge Survey)

3) EQUIPMENT LIST

The Contractor will be utilizing the following pieces of equipment during dredging operations. (see attached equipment specification sheets)

EQUIPMENT NAME	EQUIPMENT TYPE	EQUIPMENT SIZE	VHF CALL SIGN
DB "Beaver"	Clamshell Dredge	5 cy Bucket	KX7468
Scow "HB 46"	Hopper Barge	3,000 cy	KX7468
Scow "CSM 30"	Hopper Barge	2,000 cy	
Trojan	Tending	55' x 16'	KX7468
Jeanette C	Tender Tug	73' x 24'	KX7468
Survey #1	Survey Boat	23' x 9'	KX7468

4) DREDGING PLAN & PROCEDURES

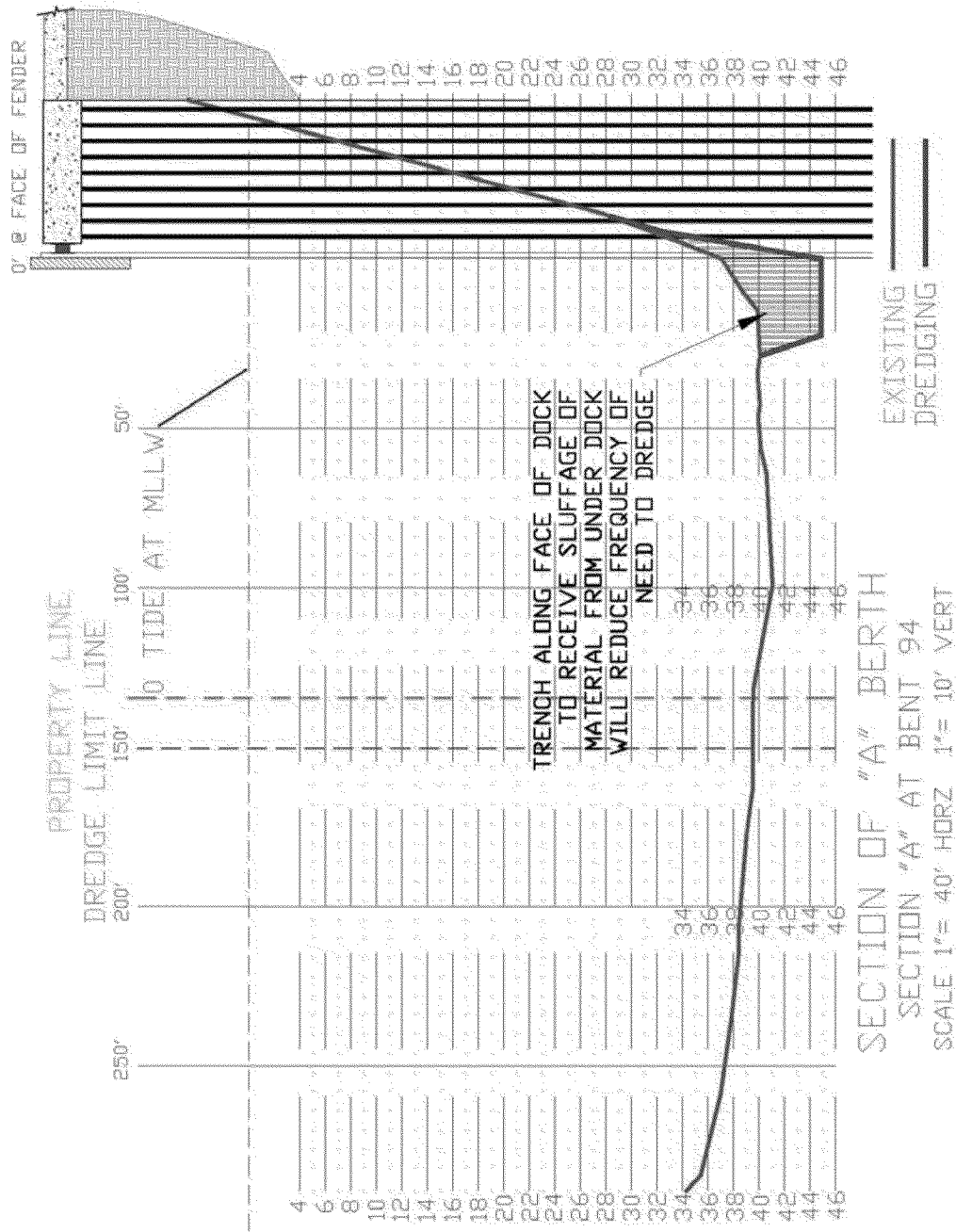
- 1) **Project Layout** - Prior to commencement of dredging operations, the designed project will be laid out by "dredge cuts" and positioning stations for the dredge operator. The clamshell dredge will dig along the dredge cuts by station. **The area to be dredged is hatched in blue. (See attached Dredge Cut Layout on Following Page)**

The dredge cuts will be oriented north south and dredging will commence along the dock face.

- 2) **Overflow Safeguard** – Both to ensure that all material and water remain in the barge and due to the floatation restriction at the offloading area, the barges will only be filled to 80% capacity therefore safeguarding against any potential overflow issues.
- 3) **Dredging Wastewater Restriction Plan** – Dutra Dredging will be utilizing the following (1) methods to limit free standing dredging wastewater: **(NO OVERFLOW WILL BE ALLOWED)**
 - A) Cable Arm Bucket- with De-watering Vents: designed to limit water from spilling back into the bay and also limiting the amount of water loaded into the scows.
- 4) The clamshell dredge will dig along the dredge cuts by station; lead line soundings will be taken at 40' intervals to assure tide-corrected depths are within the required lines and grades as specified.
- 5) Dredged material will be placed from the clamshell bucket into the dump scows. Material will not be released from the bucket prior to the bucket being inside the combing of the scow. The bucket will be held open over the barge until all the material and water has drained from the bucket. This will help eliminate resuspension of the material thru the water column.
- 6) Each scow will be inspected and tested to ensure minimal material loss during transportation. Draft marks for scows will be recorded prior to departure from the dredge site and prior to disposal.
- 7) Prior to any disposal operations or changes in dredging locations the VTCS will be notified. All project equipment will monitor channels 13, 14, and 80.
- 8) Daily Hydrographic surveys will be conducted as per specifications and as part of the C.Q.C. Plan.

"A" BERTH LEVIN-RICHMOND TERMINAL

6023130.42, 2162692.26	12.4	13.0	13.3	15.5	16.0	19.4	20.1	21.1	21.1	22.4	23.0	25.4	26.0	26.9	28.0	28.7	30.1	31.7	32.5	32.3	35.0	36.4	36.9	38.1	38.6	38.3	39.0	39.8	40.0	40.3	40.9	41.2	41.5	41.8	42.0	42.3	42.4	42.7	43.1	43.3	43.4	43.7	43.9	44.2	44.7	45.1	45.4	45.7	46.0	46.3	46.6	46.9	47.2	47.5	47.8	48.1	48.4	48.7	49.0	49.3	49.6	49.9	50.2	50.5	50.8	51.1	51.4	51.7	52.0	52.3	52.6	52.9	53.2	53.5	53.8	54.1	54.4	54.7	55.0	55.3	55.6	55.9	56.2	56.5	56.8	57.1	57.4	57.7	58.0	58.3	58.6	58.9	59.2	59.5	59.8	60.1	60.4	60.7	61.0	61.3	61.6	61.9	62.2	62.5	62.8	63.1	63.4	63.7	64.0	64.3	64.6	64.9	65.2	65.5	65.8	66.1	66.4	66.7	67.0	67.3	67.6	67.9	68.2	68.5	68.8	69.1	69.4	69.7	70.0	70.3	70.6	70.9	71.2	71.5	71.8	72.1	72.4	72.7	73.0	73.3	73.6	73.9	74.2	74.5	74.8	75.1	75.4	75.7	76.0	76.3	76.6	76.9	77.2	77.5	77.8	78.1	78.4	78.7	79.0	79.3	79.6	79.9	80.2	80.5	80.8	81.1	81.4	81.7	82.0	82.3	82.6	82.9	83.2	83.5	83.8	84.1	84.4	84.7	85.0	85.3	85.6	85.9	86.2	86.5	86.8	87.1	87.4	87.7	88.0	88.3	88.6	88.9	89.2	89.5	89.8	90.1	90.4	90.7	91.0	91.3	91.6	91.9	92.2	92.5	92.8	93.1	93.4	93.7	94.0	94.3	94.6	94.9	95.2	95.5	95.8	96.1	96.4	96.7	97.0	97.3	97.6	97.9	98.2	98.5	98.8	99.1	99.4	99.7	100.0	100.3	100.6	100.9	101.2	101.5	101.8	102.1	102.4	102.7	103.0	103.3	103.6	103.9	104.2	104.5	104.8	105.1	105.4	105.7	106.0	106.3	106.6	106.9	107.2	107.5	107.8	108.1	108.4	108.7	109.0	109.3	109.6	109.9	110.2	110.5	110.8	111.1	111.4	111.7	112.0	112.3	112.6	112.9	113.2	113.5	113.8	114.1	114.4	114.7	115.0	115.3	115.6	115.9	116.2	116.5	116.8	117.1	117.4	117.7	118.0	118.3	118.6	118.9	119.2	119.5	119.8	120.1	120.4	120.7	121.0	121.3	121.6	121.9	122.2	122.5	122.8	123.1	123.4	123.7	124.0	124.3	124.6	124.9	125.2	125.5	125.8	126.1	126.4	126.7	127.0	127.3	127.6	127.9	128.2	128.5	128.8	129.1	129.4	129.7	130.0	130.3	130.6	130.9	131.2	131.5	131.8	132.1	132.4	132.7	133.0	133.3	133.6	133.9	134.2	134.5	134.8	135.1	135.4	135.7	136.0	136.3	136.6	136.9	137.2	137.5	137.8	138.1	138.4	138.7	139.0	139.3	139.6	139.9	140.2	140.5	140.8	141.1	141.4	141.7	142.0	142.3	142.6	142.9	143.2	143.5	143.8	144.1	144.4	144.7	145.0	145.3	145.6	145.9	146.2	146.5	146.8	147.1	147.4	147.7	148.0	148.3	148.6	148.9	149.2	149.5	149.8	150.1	150.4	150.7	151.0	151.3	151.6	151.9	152.2	152.5	152.8	153.1	153.4	153.7	154.0	154.3	154.6	154.9	155.2	155.5	155.8	156.1	156.4	156.7	157.0	157.3	157.6	157.9	158.2	158.5	158.8	159.1	159.4	159.7	160.0	160.3	160.6	160.9	161.2	161.5	161.8	162.1	162.4	162.7	163.0	163.3	163.6	163.9	164.2	164.5	164.8	165.1	165.4	165.7	166.0	166.3	166.6	166.9	167.2	167.5	167.8	168.1	168.4	168.7	169.0	169.3	169.6	169.9	170.2	170.5	170.8	171.1	171.4	171.7	172.0	172.3	172.6	172.9	173.2	173.5	173.8	174.1	174.4	174.7	175.0	175.3	175.6	175.9	176.2	176.5	176.8	177.1	177.4	177.7	178.0	178.3	178.6	178.9	179.2	179.5	179.8	180.1	180.4	180.7	181.0	181.3	181.6	181.9	182.2	182.5	182.8	183.1	183.4	183.7	184.0	184.3	184.6	184.9	185.2	185.5	185.8	186.1	186.4	186.7	187.0	187.3	187.6	187.9	188.2	188.5	188.8	189.1	189.4	189.7	190.0	190.3	190.6	190.9	191.2	191.5	191.8	192.1	192.4	192.7	193.0	193.3	193.6	193.9	194.2	194.5	194.8	195.1	195.4	195.7	196.0	196.3	196.6	196.9	197.2	197.5	197.8	198.1	198.4	198.7	199.0	199.3	199.6	199.9	200.2	200.5	200.8	201.1	201.4	201.7	202.0	202.3	202.6	202.9	203.2	203.5	203.8	204.1	204.4	204.7	205.0	205.3	205.6	205.9	206.2	206.5	206.8	207.1	207.4	207.7	208.0	208.3	208.6	208.9	209.2	209.5	209.8	210.1	210.4	210.7	211.0	211.3	211.6	211.9	212.2	212.5	212.8	213.1	213.4	213.7	214.0	214.3	214.6	214.9	215.2	215.5	215.8	216.1	216.4	216.7	217.0	217.3	217.6	217.9	218.2	218.5	218.8	219.1	219.4	219.7	220.0	220.3	220.6	220.9	221.2	221.5	221.8	222.1	222.4	222.7	223.0	223.3	223.6	223.9	224.2	224.5	224.8	225.1	225.4	225.7	226.0	226.3	226.6	226.9	227.2	227.5	227.8	228.1	228.4	228.7	229.0	229.3	229.6	229.9	230.2	230.5	230.8	231.1	231.4	231.7	232.0	232.3	232.6	232.9	233.2	233.5	233.8	234.1	234.4	234.7	235.0	235.3	235.6	235.9	236.2	236.5	236.8	237.1	237.4	237.7	238.0	238.3	238.6	238.9	239.2	239.5	239.8	240.1	240.4	240.7	241.0	241.3	241.6	241.9	242.2	242.5	242.8	243.1	243.4	243.7	244.0	244.3	244.6	244.9	245.2	245.5	245.8	246.1	246.4	246.7	247.0	247.3	247.6	247.9	248.2	248.5	248.8	249.1	249.4	249.7	250.0	250.3	250.6	250.9	251.2	251.5	251.8	252.1	252.4	252.7	253.0	253.3	253.6	253.9	254.2	254.5	254.8	255.1	255.4	255.7	256.0	256.3	256.6	256.9	257.2	257.5	257.8	258.1	258.4	258.7	259.0	259.3	259.6	259.9	260.2	260.5	260.8	261.1	261.4	261.7	262.0	262.3	262.6	262.9	263.2	263.5	263.8	264.1	264.4	264.7	265.0	265.3	265.6	265.9	266.2	266.5	266.8	267.1	267.4	267.7	268.0	268.3	268.6	268.9	269.2	269.5	269.8	270.1	270.4	270.7	271.0	271.3	271.6	271.9	272.2	272.5	272.8	273.1	273.4	273.7	274.0	274.3	274.6	274.9	275.2	275.5	275.8	276.1	276.4	276.7	277.0	277.3	277.6	277.9	278.2	278.5	278.8	279.1	279.4	279.7	280.0	280.3	280.6	280.9	281.2	281.5	281.8	282.1	282.4	282.7	283.0	283.3	283.6	283.9	284.2	284.5	284.8	285.1	285.4	285.7	286.0	286.3	286.6	286.9	287.2	287.5	287.8	288.1	288.4	288.7	289.0	289.3	289.6	289.9	290.2	290.5	290.8	291.1	291.4	291.7	292.0	292.3	292.6	292.9	293.2	293.5	293.8	294.1	294.4	294.7	295.0	295.3	295.6	295.9	296.2	296.5	296.8	297.1	297.4	297.7	298.0	298.3	298.6	298.9	299.2	299.5	299.8	300.1	300.4	300.7	301.0	301.3	301.6	301.9	302.2	302.5	302.8	303.1	303.4	303.7	304.0	304.3	304.6	304.9	305.2	305.5	305.8	306.1	306.4	306.7	307.0	307.3	307.6	307.9	308.2	308.5	308.8	309.1	309.4	309.7	310.0	310.3	310.6	310.9	311.2	311.5	311.8	312.1	312.4	312.7	313.0	313.3	313.6	313.9	314.2	314.5	314.8	315.1	315.4	315.7	316.0	316.3	316.6	316.9	317.2	317.5	317.8	318.1	318.4	318.7	319.0	319.3	319.6	319.9	320.2	320.5	320.8	321.1	321.4	321.7	322.0	322.3	322.6	322.9	323.2	323.5	323.8	324.1	324.4	324.7	325.0	325.3	325.6	325.9	326.2	326.5	326.8	327.1	327.4	327.7	328.0	328.3	328.6	328.9	329.2	329.5	329.8	330.1	330.4	330.7	331.0	331.3	331.6	331.9	332.2	332.5	332.8	333.1	333.4	333.7	334.0	334.3	334.6	334.9	335.2	335.5	335.8	336.1	336.4	336.7	337.0	337.3	337.6	337.9	338.2	338.5	338.8	339.1	339.4	339.7	340.0	340.3	340.6	340.9	341.2	341.5	341.8	342.1	342.4	342.7	343.0	343.3	343.6	343.9	344.2	344.5	344.8	345.1	345.4	345.7	346.0	346.3	346.6	346.9	347.2	347.5	347.8	348.1	348.4	348.7	349.0	349.3	349.6	349.9	350.2	350.5	350.8	351.1	351.4	351.7	352.0	352.3	352.6	352.9	353.2	353.5	353.8	354.1	354.4	354.7	355.0	355.3	355.6	355.9	356.2	356.5	356.8	357.1	357.4	357.7	358.0	358.3	358.6	358.9	359.2	359.5	359.8	360.1	360.4	360.7	361.0	361.3	361.6	361.9	362.2	362.5	362.8	363.1	363.4	363.7	364.0	364.3	364.6	364.9	365.2	365.5	365.8	366.1	366.4	366.7	367.0	367.3	367.6	367.9	368.2	368.5	368.8	369.1	369.4	369.7	370.0	370.3	370.6	370.9	371.2	371.5	371.8	372.1	372.4	372.7	373.0	373.3	373.6	373.9	374.2	374.5	374.8	375.1	375.4	375.7	376.0	376.3	376.6	376.9	377.2	377.5	377.8	378.1	378.4	378.7	379.0	379.3	379.6	379.9	380.2	380.5	380.8	381.1	381.4	381.7	382.0	382.3	382.6	382.9	383.2	383.5	383.8	384.1	384.4	384.7	385.0	385.3	385.6	385.9	386.2	386.5	386.8	387.1	387.4	387.7	388.0	388.3	388.6	388.9	389.2	389.5	389.8	390.1	390.4	390.7	391.0	391.3	391.6	391.9	392.2	392.5	392.8	393.1	393.4	393.7	394.0	394.3	394.6	394.9	395.2	395.5	395.8	396.1	396.4	396.7	397.0	397.3	397.6	397.9	398.2	398.5	398.8	399.1	399.4	399.7	400.0	400.3	400.6	400.9	401.2	401.5	401.8	402.1	402.4	402.7	403.0	403.3	403.6	403.9	404.2	404.5	404.8	405.1	405.4	405.7	406.0	406.3	406
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C:\Users\j\My Documents\AutoCAD 2009\1013-A BERTH DREDGING CROSS SECTION.dwg, 5/17/2013 1:39:16 PM, A/E: j\april 18 50 x 11.00 (inches)

- 9) **Project Layout** - Prior to commencement of dredging operations, the designed project will be laid out by "dredge cuts" and positioning stations for the dredge operator. The clamshell dredge will dig along the dredge cuts by station.

- A) Dredge Cuts and Limits will be imported into the dredge tracking system (Hypack). This will show the operators all berth limits and dredge areas.
- B) Berths A will be dredged based on availability and order of priority.
 - 1) Dredging Berths A (-45.0') with disposal of dredged material to LTRC Berth B Upland for drying and disposal.
- C) CQC inspection will be a daily part of the dredge and disposal operation. Daily CQ surveys and lead line soundings will be taken at 50' intervals to assure tide-corrected depths are within the required lines and grades as specified in the Specs.
- D) Prior to any disposal operations and/or changes in the dredging locations, the VTCS will be notified.
- E) **Pre, Post Dredge Surveys** and Daily Hydrographic surveys will be conducted as per USACE Survey Standards.

- 10) **Dredging Wastewater Restriction Plan** – Dutra Dredging will be utilizing the following (2) methods to limit free standing dredging wastewater: **(NO OVERFLOW WILL BE ALLOWED)**

- B) Internal Discharging System : No Discharge will be allowed on this project. The Hopper Barges to be used are solid state and do not discharge into the Bay.
- C) An Environmental Cable Arm Bucket- With De-watering Vents: designed to limit water from spilling back into the bay and also limiting the amount of water loaded into the scows.

11) **Dredging Procedures**

Dredging will commence in Cut 1 on the northwest edge of Berth A. Dredging will proceed southwest through each sample area towards the end of Berth A. All dredging activity will be within the required silt curtain separating the turbid dredge water from the bay water. The silt curtain will only be opened to allow the transit of the disposal barges to Berth B.

As stated above, all dredging activity will be performed with an Environmental Cable Arm Bucket used to reduce turbidity and to the largest extend possible.

12) **Solid Debris Containment and Disposal** – All the scows will be equipped with a steel grid grizzly with nominal openings 12"x12" to separate debris as required. A containment boom and curtain will be put in place as needed if floating debris is encountered. Material will be dredged utilizing a clamshell dredge. The dredged material will be dropped through the 12" x 12" grid grizzly prior to entering the hopper of the dump scow. This will assure any solid debris and/or artificial objects from passing into the hopper of the dump scow, eliminating any solid debris from being offloaded into the disposal site. Solid debris and artificial objects trapped on the grizzly will be removed and stored on the deck of the clamshell dredge. Upon completion of a dredging episode all solid debris will be offloaded into debris boxes at our Alameda yard and disposed of at an approved upland location. If we encounter a lot of debris (i.e. pile, logs, wire, trash, etc.) we will offload on a more frequent bases. (see attached Solid Debris Management Plan)

A) **DISPOSAL:** Material will be dredged utilizing a clamshell dredge. The dredged material will be dropped through the 12" x 12" grid grizzly prior to entering the hopper of the dump scow. This will assure any solid debris and/or artificial objects from passing into the hopper of the dump scow thus eliminating any solid debris from being disposed.

5) HORIZONTAL AND VERTICAL CONTROL

Project horizontal and vertical positioning will be accomplished using the following Control Point:

1) **Vertical Datum based on benchmark set at the southeast corner of the Berth A dock at Elevation 12.86' MLLW and N2162312.91, E6023593.35. The DGPS equipment on the survey boat, dredge, and tow boat will be certified for sub-meter accuracy utilizing the benchmark. As a backup differential, we will utilize US Coast Guard Nav. Station Point Blunt.**

2) **Vertical Datum based on NOAA Tide Gauge located on LRT Berth A**

3) **Plane and Grid coordinates are based on Lambert Projection Zone III, California**

4) **Tidal Control / Monitoring**

A) **Automatic Recording Tide Gages** – Dutra Dredging will be installing (1) Tide Gauges inside the limits of the dredge area. (Located next to the NOAA Tide Gauge)

B) **Averaging Tides / Recording Intervals** - The recorded readings from the tide gauges will be averaged together to compute the tidal change. Both tide gauges will provide continues recordings of tidal changes on 15 min. intervals and/or every one-foot change in tide.

C) **Tidal Datum** – Tidal readings will be recorded in MLLW Datum.

D) **Tidal Reading Display** – Tidal readings will be visually displayed on a real-time bases to the dredge operator.

6) Control Equipment and Systems

EQUIPMENT	POSITION CONTROL	VERTICAL CONTROL	TIDEAL CONTROL	AZIMUTH CONTROL	SOFTWARE / HARDWARD
Survey #1	Trimble AGE-182	Innerspace 448 Fathometer, 3 degree transducer	Hazen HTG 4000	Sperry	Hypack Max
Dredge DB "Beaver"	Trimble AGE-182	N/A	Hazen HTG 4000	Anschutz	Dredge-Pac / Nobel Tech
Tender Tug Trojan	Trimble	N/A	N/A	Sperry	SAIC / Nobel Tech / SAIC

7) CONTRACTOR REPRESENTATIVES

Name	Title	Phone Number
John A. Krause	Division Manager	(415) 258-6876 / Office
		(415) 254-4443 / Cell
		(510) 337-8855 / Fax
Chris Milam	C.Q.C. Representative	(415) 258-6876 / Office
		(415) 218-6739/ Cell
		(510) 337-8855 / Fax
Dennis Salyers	Operations Manager	(510) 497-5289 / Cell
		(510) 337-8855 / Fax
Cliff Hunt	Administrative Safety Supervisor	(415) 458-5499 / Office
		(415) 721-1394 / Fax

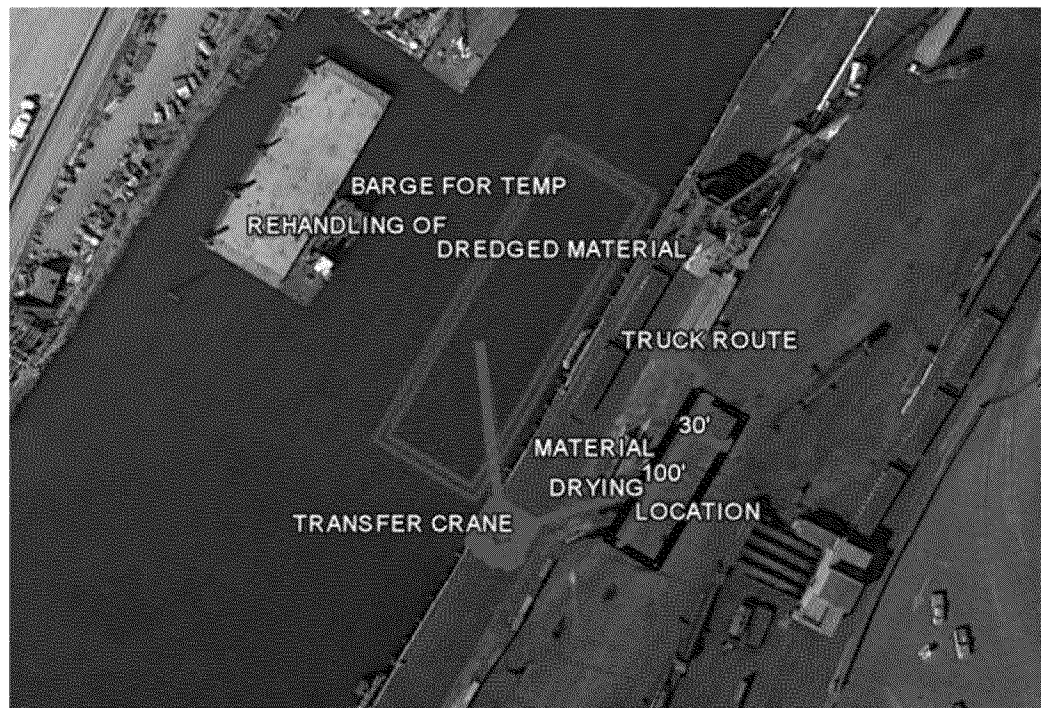
8) PLACEMENT OPERATIONS AND MONITORING

DISPOSAL OPERATIONS – BERTH B

1) PROCEDURES

- B) UPLAND DISPOSAL – BERTH B:** Material will be dredged utilizing a clamshell dredge. The dredged material will be dropped through the 12" x 12" grid grizzly prior to entering the hopper of the dump scow. This will assure any solid debris and/or artificial objects from passing into the hopper of the dump scow, eliminating any solid debris from being offloaded into the disposal site.
- C) TRANSPORTATION – BERTH B:** Material will be transported via Dump Scows from the dredge area to Berth B. Upon arrival at Berth B the dump scows will be tied along side the berth face where they will be offloaded.

Berth B Disposal Offloading



D) OFFLOADING – BERTH B:

- A) Dredge Material will be offloaded utilizing a clamshell dredge.
- B) The dredge will be positioned along side face of Berth B (see attached Berth B Disposal & Offloading Plan Layout)
- C) Loaded dump scows will be positioned in front of the dredge with the bow forward.
- D) The clamshell dredge will offload the dredged material out of the dump scow and over the disposal site k-rail. Material and will then be dropped into the disposal area.

D) OFFLOADING SPILL CONTROL

- A) As material is being dredged out of the dump scows, the crane operators will let any free standing water and/or excess material fall back into the dump scow.

2) START-UP

Prior to the start of disposal operations, each scow will be inspected to ensure minimum material loss during transportation. Draft marks will be recorded prior to departure from the dredge site and prior to disposal. A scow losing material to cause at least a one-foot difference in overall draft during transit, as recorded by the DDLS, shall be removed from the project and repaired before it is allowed to return.

3) DISPOSAL TRACKING

The Tow Tug will be equipped with a Differential Global Positioning System (DGPS). This system will reference the US Coast Guard Point Blunt Differential Beacon Control Point. The DGPS position will be interfaced with E-Trac's tracking software to create a visual display of the disposal site and the position and route to and from the dredge area. The E-Trac software will also record all position data to, from, and during disposal operations. Printouts will be prepared for each disposal trip and submitted as part of the daily QC Report.

4) DISPOSAL SUBMITTALS

The contractor will submit the following information each Monday per the Permit Requirement:

- 1) DDLS Disposal Plots, documenting each disposal event.
- 2) US Army Corps of Engineers, San Francisco District – Dredge Material Disposal Site Log (Weekly)

9) SOLID DEBRIS MANAGEMENT PLAN

As required by the law and in compliance with Local, State and Federal regulations, set forth as follows is the Contractor's Solid Debris Management Plan.

1) SOLID WASTE:

- A)** All rubbish, garbage, and other discarded solid material resulting from dredging and offloading operations will be retained on board the dredge in provided containers until transfer to appropriate refuse receptacles for upland disposal as necessary. (i.e. logs, wire, trash, etc.)
- B)** Refuse service used will be an acceptable local refuse company.

2) CHEMICAL WASTE:

- A)** All chemical waste, such as oil and grease, will be retained onboard in special tanks until pumped off for disposal.
- B)** Waste oil service will be an acceptable local disposal firm.

3) DREDGING AND SOLID DEBRIS:

- E)** All material dredged transported through the hydraulic pump will be screened through a debris trap/box prior to entering the discharge pipeline. The debris trap/box will be inspected and emptied periodically to prevent debris from entering the discharge pipeline.
- F)** All debris floatable or non-floatable greater than 24" in diameter which is dredged mechanically into the disposal scows, will be removed prior to disposal or placement of dredged material.
- G)** A containment boom and curtain will be put in place as needed if floating debris is encountered.

4) FLOATING DEBRIS

- 1) A tending workboat or skiff will be deployed to trap any floating debris resulting from the dredging operations. Once the floating debris has been isolated, it will be picked up by the workboat crew and retained for disposal in compliance with procedures for solid debris.
- 2) A containment boom and curtain will be put in place as needed if floating debris is encountered.
- 3) Containment Boom will be stored aboard the dredge and/or on shore and will be deployed in the event of any oil or chemical spills.

10) STORM WATER RUNOFF PLAN

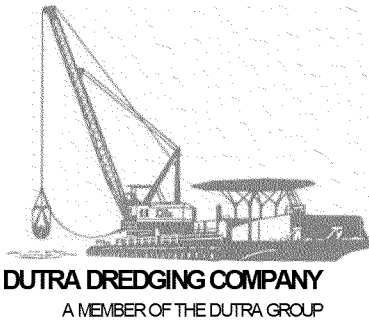
- a) **Compliance** – Dutra Dredging will implement a **Total Compliance Policy** with the San Francisco Regional Water Quality Control Board, National Marine Fisheries, and the United States Environmental Protection Agency Region IX permits and regulations. This total compliance policy will contain (3) aspects:

1. **Understanding** – All Dutra C.Q.C. personnel will be issued and comply with all local, state, and federal regulation pertaining to this project.
2. **Control Plan Implementation** – Prior to any upland operations our approved runoff plan will be in place.
3. **Corrective Action** – Should there be a breakdown in our runoff plan all upland operations will be Immediately Stopped until all corrective measures have been made.

b) **Protection**

- 1) All manhole and catch basins in the designed upland disposal and stock pile areas will be marked, wrapped in HDPE, and blocked off by hay bales.
- 2) Offloading Operations Runoff Control
 - a) As material is being offloaded out of the dump scows, the crane operator will let free standing and /or excess material fall back into the dump scow prior to being offloaded into the berth B upland disposal area. (see attached Berth B offloading & containment area)
 - b) **Berth B Runoff Containment & Offloading Containment Bracket** – In order to safe guard against any free standing dredge water or material from spilling back into the bay we will install a **Offloading Containment Bracket**. The bracket will be install on the deck of berth B and will hang over the fender wall. The scows will be mooring under the bracket along side the fender wall. K-rail and Straw Bales will seal off the area before the Berth B Containment Berms (see attached drawing of Bracket)
 - c) All existing Berth #B Disposal Dikes will be inspected for damage and./or hole that would allow material or water to run into storm drains, the bay, or man holes covers.

May 6, 2013



Commander (POW)
11th Coast Guard District
Building 50-6
Coast Guard Island
Alameda, CA 94501

Subject: Notice to Mariners

Reference: Levin Richmond Terminal
Maintenance Dredging – Berth A Advance Maintenance Trench with Disposal to
Berth B

Gentlemen:

We request that a Notice to Mariners be posted regarding our **Dredging Operations** at the Levin Terminal in Richmond Inner Harbor. Our clamshell dredges, "DB Beaver" and will carry out dredging operations. Our scow fleet will consist of (2) solid hull scows. The scows will be utilized for all Disposal Operations both to the offloading facility at Levin Terminal Berth B. The capacities of the scows are as follows: (1) scow have a nominal capacity of 3,000cy, (1) capacity 2,000cy. The tow tug "Sara Reed" will serve as our tending tug during offloading operations. Support will also be supplied by the tender tug "Trojan". All equipment will monitor Channel 13, 14, and 82. The tow tug will use the call sign KX7468.

Our Dredging operations will commence on or about June 1, 2013 and end on or about July 1, 2013. During this time we will be operating 24 hours / 7 days / week between the Levin Richmond Terminal Berth A (approx. Lat 37.9186 / Long 122.3654) and upland disposal at the Levin Terminal. Dredge Equipment may partially obscure the channel in that location.

Our Operations Manager Mr. Dennis Salyers can be reached at (510) 497-5289.

Mariners are advised to use extreme caution while transiting the dredge area. In the event you have questions concerning our request for a Notice to Mariners, please contact me at (415) 254-4443.

Yours truly,
The Dutra Group

John A. Krause
Division Manager

cc: Debra O'Leary - DMMO
Jim Cannon - LRTC

To: Scianni, Melissa[Scianni.Melissa@epa.gov]
Cc: Ross, Brian[Ross.Brian@epa.gov]
From: O'Leary, Debra A SPN
Sent: Sat 5/18/2013 12:19:59 AM
Subject: FW: Dredging Operations Plan for Levin Terminals Richmond (UNCLASSIFIED)
[image001.jpg](#)
[LRTC Dredging Operations Plan fy13 R1.pdf](#)
[A BERTH TRENCH and ADVANCED MAINT DREDGE 4-23-13 eTRACK-Model.pdf](#)

Classification: UNCLASSIFIED
Caveats: NONE

Hi Melissa,

I just got this DOP for dredging the trench at Levin terminal. They are requesting to dispose of 3,600 cy of sediment at SF-DODS.
Does EPA concur with this proposed disposal?

-Debra

-----Original Message-----

From: Oriana Duranczyk [mailto:Oriana@dutragroup.com]
Sent: Friday, May 17, 2013 3:29 PM
To: O'Leary, Debra A SPN; Beth Christian (echristian@waterboards.ca.gov); brendag@bcdcc.ca.gov
Cc: Jim Cannon (jimc@levinterminal.com)
Subject: Dredging Operations Plan for Levin Terminals Richmond

All,

Attached is an electronic copy of our Operations Plan for Dredging at Levin Terminals in Richmond, CA
Hard Copies to follow in the mail.

Have a lovely weekend,

Oriana Duranczyk

d

(415) 259-7458 - cell

(415) 257-8662 - office

Classification: UNCLASSIFIED
Caveats: NONE

***** ATTACHMENT NOT DELIVERED *****

This Email message contained an attachment named
image001.jpg
which may be a computer program. This attached computer program could
contain a computer virus which could cause harm to EPA's computers,
network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced
into the EPA network. EPA is deleting all computer program attachments
sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you
should contact the sender and request that they rename the file name
extension and resend the Email with the renamed attachment. After
receiving the revised Email, containing the renamed attachment, you can
rename the file extension to its correct name.

For further information, please contact the EPA Call Center at
(866) 411-4EPA (4372). The TDD number is (866) 489-4900.

***** ATTACHMENT NOT DELIVERED *****

To: garyl@levinterminal.com[garyl@levinterminal.com]
Cc: LYONS, JOHN[Lyons.John@epa.gov]; Scianni, Melissa[Scianni.Melissa@epa.gov];
Ross, Brian[Ross.Brian@epa.gov]
From: thompson, rachel
Sent: Tue 2/12/2013 9:51:08 PM
Subject: Initial EPA comments on proposed United Heckathorn dredging
[UnitedHeckathorn lettertoLRTC 021213.pdf](#)

Good afternoon,

Here is an electronic copy of the letter that was mailed to you today regarding the United Heckathorn Superfund Site.

Sincerely,

Rachelle Thompson, MS, PE
Environmental Engineer, Superfund Division
US Environmental Protection Agency Region 9
75 Hawthorne St, SFD-7-3
San Francisco, CA 94105
(415) 972-3962
thompson.rachelle@epa.gov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

February 12, 2013

Mr. Gary M. Levin
President and CEO
Levin Richmond Terminal Corporation
4012 Wright Avenue
Richmond, CA 94804

Dear Mr. Levin,

Thank you for informing the United States Environmental Protection Agency (EPA) of your interest in conducting maintenance dredging at Berth B of the Levin Richmond Terminal Corporation. Based on the draft Proposed Scope of Work prepared by Pacific EcoRisk, the work you would like to complete is located in the Lauritzen Channel, which is part of the United Heckathorn Superfund Site. Therefore, EPA's primary requirement is that your work neither interferes with EPA's ongoing feasibility study and future remedy for the site, nor spreads contamination from the site to adjacent waterways.

Because your proposed work is a maintenance dredging project and not a Superfund project, the Dredged Materials Management Office (DMMO) agencies will be the permitting authorities. Therefore, EPA requests that you develop and submit a Sampling and Analysis Plan (SAP) to the DMMO as would normally be required for this type of project. In this case, because of the location of the project, EPA also requests the opportunity to review and approve the Dredge Operations Plan (DOP) you will prepare for the DMMO agencies prior to commencing work. Please send Superfund a copy of any documents that you submit to the DMMO. For your reference as you prepare the SAP and DOP, EPA has the following initial comments:

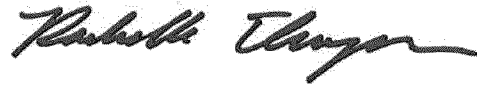
1. EPA recommends z-layer sampling as follows: at each core location, collect and separately archive a 6-inch "z-layer" sample from below the total proposed dredging depth (project depth plus overdepth). Specifically, dredging is proposed for -33 ft MLLW, + 1 additional foot of overdepth, for a total dredge depth of -34 ft MLLW. Thus, the cores should be taken 6 inches deeper, to -34.5 ft MLLW. The lower 6 inches should be separated from each core before the rest of the core is homogenized or composited with sediments from any other cores for testing. These samples can then be used if needed to characterize DDT, dieldrin, and other contaminants determined by the DMMO in the likely post-dredge surface, in comparison to the overlying sediment. Depending on overlying sediment chemistry results, it may become necessary to spatially characterize contaminants other than DDT and dieldrin in the z-layer. As currently proposed in the

draft Scope of Work, other contaminants would only be evaluated in the single berth-wide composite, so spatial characterization would not be possible.

2. EPA recommends evaluating PCB congeners, as well as DDT and dieldrin, on the individual cores. The DMMO will likely ask for the Regional Monitoring Program list of 40 congeners for comparison with San Francisco Estuary Institute's multi-year Bay-wide database, and to be consistent with the Bay's Total Maximum Daily Load for PCBs.
3. The proposal mentions a silt curtain as a potential mitigation measure only. Given the known pesticide contamination at the site, EPA will require the use of a silt curtain during any dredging activities in the Lauritzen Channel. At a minimum, the procedures employed during the previous dredging in 1996-1997 should be used. The DOP should discuss the size, type, location, and operation of the silt curtain very specifically.
4. Another key issue is the proposed use of an environmental bucket for the dredging. Specific requirements for configuration and operation are necessary for a CableArm or similar bucket to actually minimize sediment resuspension and transport, and local turbidity. For example, sealed vents reduce sediment fall-back as the bucket is raised through the water column. Additionally, slower bucket drop and retrieval speeds than are used in typical dredging are usually required. The proposal to allow free water to flow from the bucket back into the water is counter to this concept. It also appears internally inconsistent, because free water in the scows is proposed to be pumped to Baker tanks and subsequently treated.
5. Dewatering cell(s) should be described in more detail. Avoiding leakage from rail cars after dewatering is mentioned, but not containing any water from the dewatering cell(s). At a minimum, the DOP should note whether there would be any physical containment features for any remaining free water such as plastic sheeting over the K-Rails. Again, any lessons learned from similar dewatering operations at this same location should at least be mentioned.
6. EPA recently completed a bathymetric survey of the entire Lauritzen Channel, including the area near Berth B, to support a feasibility study. Since the proposed dredging would clearly modify the surface of the channel sediments, EPA will require that the Levin Richmond Terminal Corporation conduct new side-scan sonar and multi-beam surveys of the Lauritzen Channel soon after the dredging is finished. This may suffice for the DMMO agencies' post-dredge survey needs as well, if coordinated with them in advance.

For questions about the Superfund Site, please contact me at 415-972-3962. For questions about EPA's dredging requirements, please contact Melissa Scianni or Brian Ross of EPA's Water Division at 415-972-3821 or 415-972-3475, respectively. For legal questions, please contact John Lyons of EPA's Office of Regional Counsel at 415-972-3889. Thank you for your ongoing cooperation with the cleanup of the United Heckathorn site.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachelle Thompson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Rachelle Thompson, MS, PE
Remedial Project Manager
Superfund Division, SFD-7-3

cc: John Lyons, USEPA Office of Regional Counsel
Melissa Scianni, USEPA Water Division
Brian Ross, USEPA Water Division

To: Honore, Athena@Waterboards[Athena.Honore@waterboards.ca.gov]; Hutzel, Amy@SCC[Amy.Hutzel@scc.ca.gov];
 albert@hankbrucearchitects.com[albert@hankbrucearchitects.com];
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 bill@Lindmarine.com[bill@Lindmarine.com]; BILL-938@sbcglobal.net[BILL-938@sbcglobal.net];
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 browbob@aol.com[browbob@aol.com]; bryan.vogel@dot.gov[bryan.vogel@dot.gov];
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 Charles@DTSC[Charles.Gribble@dtsc.ca.gov]; chansonenv@AOL[chansonenv@aol.com];
 charles.smith@dot.ca.gov[charles.smith@dot.ca.gov]; chelseaphlegar@w-and-k.com[chelseaphlegar@w-and-k.com];
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 chris@lindmarine.net[chris@lindmarine.net];
 christina.mcdowell@tsocorp.com[christina.mcdowell@tsocorp.com];
 christine@boudreaullc.com[christine@boudreaullc.com];
 christopher.k.eng@usace.army.mil[christopher.k.eng@usace.army.mil];
 christy_smith@fws.gov[christy_smith@fws.gov];
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 Craig@USACE[Craig.S.Conner@usace.army.mil]; craiglewis@w-and-k.com[craiglewis@w-and-k.com];
 pc@clausenengineers.com[pc@clausenengineers.com];
 cwb@clausenengineers.com[cwb@clausenengineers.com]; Wilcox,
 Carl@Wildlife[Carl.Wilcox@wildlife.ca.gov];
 Cynthia.J.Fowler@usace.army.mil[Cynthia.J.Fowler@usace.army.mil];
 dainley@penguinscience.com[dainley@penguinscience.com];
 dan6110@gmail.com[dan6110@gmail.com]; daniel@kaydix.com[daniel@kaydix.com];
 darren.howe@noaa.gov[darren.howe@noaa.gov];

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ebrown@earthjustice.org[ebrown@earthjustice.org]; Larson, Eric@Wildlife[Eric.Larson@wildlife.ca.gov];
Elif.E.Fehm-Sullivan@usace.army.mil[Elif.E.Fehm-Sullivan@usace.army.mil];
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Cc: Goeden, Brenda@BCDC[brenda.goeden@bcdca.gov]

From: Goeden, Brenda@BCDC

Sent: Tue 2/16/2016 9:05:57 PM

Subject: LTMS Meetings This Friday, February 19th

[LTMS Project Coordination Agenda201650219.doc](#)

[LTMSMCAgenda DFT20160219PS.doc](#)

[LTMS SFB Dredge Project 20160216.xls](#)

[KirkGilliganPresentationFlyer3\[1\].pdf](#)

[Entrainment Announcement final 2 feb 2016\[1\].docx](#)

Good Afternoon All,

I hope you had a good, long weekend and are ready for the week. I am providing to you the updated schedule for the LTMS meetings on Friday. The Public Session of the Management Committee

meeting has been slightly revised. I am also providing the agenda (apologies for the delay) and project spreadsheet for the afternoon Project Coordination Meeting following a break in the afternoon.

Both meetings are at the Water Board and there is a call in number available for those who can not attend in person.

Phone Line: 888-398-2342

Participant Code: 6874966

Lastly, attached are two filers about additional meetings – one on smelt entrainment studies and another brown bag on thin layer placement of sediment pilot in the southland.

Let me know if you have questions.

--

Brenda Goeden
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SEEKING SOLUTIONS TO HOPPER DREDGE ENTRAINMENT OF DELTA AND LONGFIN SMELT

February 25, 2016

1515 Clay Street, Oakland, CA 94612
Room: 2

Entrainment of Delta and Longfin Smelt by hopper dredges is one of many potential pressures affecting these sensitive fish species. Maintaining navigation channels while protecting these resources poses significant challenges.



The US Army Corps of Engineers, San Francisco District, sponsored a study by HDR Engineering to identify potential solutions, including means to improve monitoring of entrainment and best management practices (BMP) to reduce the risk of entrainment.

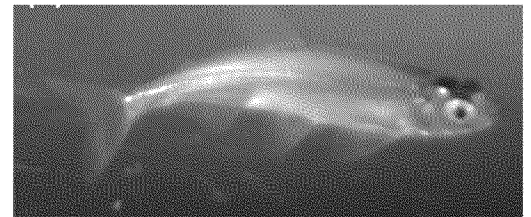
Dr. Doug Clarke and other HDR staff will present their results and recommendations on Feb 25. The report and meeting are products of HDR in collaboration with the US Army Corps of Engineers in support of the Long Term Management Strategy (LTMS).

Presentation: 9:30 – noon

Roundtable discussion (feedback from interested parties): 1:00 – 3:30

Meeting Objectives

- Explain risks of entrainment
- Present options for monitoring and BMPs
- Gather feedback for revising the report and identifying a path forward on these issues



Copies of the report are available upon request from William.N.Brostoff@usace.army.mil.
An agenda will be distributed to those who RSVP or upon request.

RSVP for limited seating to Mark.Ashenfelter@hdrinc.com by February 19, 2016.



Thin-layer Salt Marsh Sediment Augmentation Pilot Project at Seal Beach NWR, Southern California.

By Kirk Gilligan, Seal Beach NWR Manager

The US Fish and Wildlife Service is applying a thin-layer of beneficially-reused dredged material over 10 acres of existing low salt marsh habitat on the Seal Beach National Wildlife Refuge. This pilot project is designed to document effectiveness of this strategy in combating sea level rise, while improving the quality of subsided Pacific cordgrass-dominated salt marsh habitat to support the federally endangered light-footed Ridgway's rail (formerly known as the light-footed clapper rail). Come learn about the first thin-layer placement project on the west coast, and the monitoring program that will document the efficacy of this restoration method.



*Where: 1455 Market St., San Francisco
Lobby Conference Room*

When: 12:00-1:00 p.m., March 3 2016

RSVP: elizabeth.o.murray@usace.army.mil





LONG TERM MANAGEMENT STRATEGY

Dredging Project Coordination Meeting Agenda

19 February 2016: 1:30 pm – 3:00pm

Water Board Office, Second Floor ~ Room 12
1515 Clay Street, Oakland (12th Street BART Station)

- | | |
|--|------|
| 1. Welcome and Introductions | 1:30 |
| 2. Agenda and Meeting Purpose | 1:40 |
| 3. Update: SediMatch | 1:45 |
| 4. Update on Amended NMFS LTMS Programmatic
Biological Opinion & CDFW Discussions | 2:00 |
| 5. Further Discussion of Beneficial Reuse Sites | 2:10 |
| 6. Dredging Project Review | 2:20 |
| 7. Final Thoughts/Questions | 2:50 |
| 8. Adjourn | 3:00 |

Conference Line Information:

Phone Line: 888-398-2342
Participant Code: 6874966

NOTE: Information in columns J through U may be outdated - A spreadsheet developed at the Short Te

Project Assigned To	PROJECT NAME	CITY/LOCAL E	BCDC PERMIT #	LATITUDE	LONGITUDE	CONTACT PERSON	PHONE	OF EPISODE
	Aeolian Yacht Club	Alameda	M85-63	37.750°N	122.232°W	Richard Purdy	510/523-2586	
	Alameda County flood control	Various around county				Don La Belle	510/670-5444	
	Alameda Point Navigational Channel	Alameda	M05-07			Jacklyn Gnusti; Rick Rhoads		
	Alviso Marina Boat Ramp (Santa Clara Parks Dept)	Alviso						
	Amports (aka Port of Benicia, Benicia Port Terminal, Benicia Industries)	Benicia	M75-95	38.042°N	122.135°W	Jim Triplett/Nancy Pagan	707/745-2394	
	Antioch Marina Boat Ramp	Antioch						
	Arques Shipyard & Marina	Sausalito 94965				Lemon-Shorter		
	Ballena Bay Townhouses	Alameda		37.767°N	122.284°W	John Marty; Cooper	(415) 892-2778	
	Ballena Isle Marina	Alameda		37.767°N	122.284°W	Ross Hollinger	510/523-5528	
	BART Seismic Retrofit Project	Oakland						
	Bay Bridge access channel	East side of Bay Bridge		37.825°N	122.321°W	Julie Kistle	510/232-6319	
	Bay Bridge Cofferdam Excavation	New east side Bay Bridge west bound lanes		37.825°N	122.321°W	Julie Kistle	510/232-6321	
	Bay Bridge Glory Hole Dredging	New east side Bay Bridge west bound lanes		37.825°N	122.321°W	Julie Kistle	510/232-6320	
	Bel Marin Keys (North Lagoon)	Novato	M97-3					
	Benicia Marina	Benicia	5-77	38.045°N	122.154°W	Otto Giuliani	707/746-4210	
	Berkeley Marina	Berkeley	5-79	37.866°N	122.314°W	Dana Lucas (Marine Center)	510/843-8195	
	Black Point Launch Ramp	Novato						
	BP Richmond Terminal	Richmond	M04-20					
	Brickyard Cove	Pt. Richmond	M86-36					
	California Maritime Academy	Vallejo						
	Caltrans - Yerba Buena Island	Oakland						
	Cargill - Napa River	Napa		38.275°N	122.852°W			

	Castrol Richmond Terminal	Richmond				William Walter	510/238-6312 ext. 102	
	Chevron Long Wharf	Richmond	M84-43	37.925°N	122.408°W	Don Kinkela	510/242-3308	
	Clipper Yacht Harbor	Sausalito	M94-6	37.871°N	122.496°W	Ken Pederson	415/332-3500	
	ConocoPhillips, Richmond	Richmond						
	ConocoPhillips, Rodeo	Rodeo	M74-69	38.053°N	122.260°W	Dennis Quilici	510/245-4403	
	Corona Del Mar Association	Alameda						
	Coyote Point Marina	San Mateo				Ron Weaver	650-363-1881	
	Emery Cove Marina	Emeryville	NOI 08-3	37.839°N	122.310°W	Diane Isley	510/428-0505	
	Emeryville Access Channel	Emeryville	M81-41			John Marty; Cooper	(415) 892-2778	
	Glen Cove Marina (aka Western Waterways Inc.)	Vallejo	24-76					
	Greenbrae Marina	Larkspur				John Marty; Cooper	(415) 892-2778	
	Hanson Aggregates (at Tidewater Ave)	Oakland	M01-42					
	IMTT Richmond Terminal	Richmond				Cheney	510/412-5700	
	Kahn Dock	Marin	M07-16					
	Larkspur Ferry Berths - maint. dredging	Larkspur		37.942°N	122.504°W	Lynford Edwards	415/923-2349	
	Larkspur Ferry Channel	Larkspur		37.942°N	122.504°W	Lynford Edwards	415/923-2349	
	Levin Richmond Berths	Richmond						
	Loch Lomond Marina	San Rafael		37.871°N	122.496°W	Pat Lopez	415/454-7228	
	Lowrie Yacht Harbor	San Rafael				Bud Lowrie	415/454-7595	
	Mare Island Berth 22/23 (Weston)	Mare Island		38.083°N	122.250°W	Terry Iwagoshi	707/562-3303	
	Marin Rowing Club	Larkspur						
	Marin Yacht Club	San Rafael	M92-45			Dave Dorward	415/453-9366	
	Marina Plaza Harbor	Sausalito				Peter Moorehead	415-332-4723	
	Marina Vista Canal	San Rafael						
	Martinez Marina	Martinez				Kronsnabl, Kinnetic labs	(831) 457-3950	
	Martinez Marina	Martinez	M81-93					
	Mirant Contra Costa Power Plant							
	Mirant Pittsburg Power Plant							
	Napa River Channel	Napa						
	Napa Valley Marina	Napa	20-78	2007		BC	2005	
	National Gypsum Terminal					Cheney		

	Oakland Yacht Club	Oakland						
	Oyster Cove Marina	South San Francisco	1-77					
	Pacific Refining Company	Hercules	M89-53					
	Paradise Cay Marina/ Yacht Club (aka Pullman Building Company)	Tiburon	M96-9 (formerly M02-15)			Harry Blake	415/435-6285	
	Petaluma Marina	Petaluma						
	Petaluma River (Corps O&M)	Petaluma River	CN9-06	38.113°N	122.502°W	Corps		
	Pinole Shoal (Corps O&M)	Pinole	CN9-06	38.041°N	122.353°W			
	Port of Oakland - BART Work	Oakland						
	Port of Oakland Deepening (new work)	Port of Oakland	CN 14-00	37.803°N	122.329°W	Corps		
	Port of Oakland Inner Harbor (Corps O&M)	Port of Oakland	CN9-06	37.809°N	122.337°W	Corps		
	Maintenance - Berths 20, 21, 23, 30, 32, 33, 37, 55-59,	Port of Oakland	M03-39	37.793°N	122.288°W	Len Cardoza	510/627-1307	
	Port of Oakland Outer Harbor (Corps O&M)	Port of Oakland	CN9-06	37.809°N	122.337°W	Corps		
	Port of Redwood City Berths	Redwood City	M93-77	37.516°N	122.205°W	Don Snaman	650/306-4150	
	Port of Richmond Berths	Richmond	M96-17			Jim Matzorkis	510/215-4600	
	Port of San Francisco, Berths 80/92/94/96 & Islais Creek	San Francisco		37.747°N	122.375°W	Jay Ach	415/274-0563	
	Port of SF (berth 35)	San Francisco		37.809°N	122.405°W	Jay Ach	415/274-0563	
	Port of SF (other berths)	San Francisco		37.782°N	122.382°W	Jay Ach	415/274-0564	
	Port of Stockton	Stockton		37.951°N	121.327°W	Gordon Palmer	209/946-0246	
	Port Sonoma	Petaluma						
	Pt. San Pablo Yacht Harbor	Pt. Richmond	M87-60	37.964°N	122.417°W	Jim Hearn Eric Johnson	510/233-3224	
	Redwood City Harbor (Corps)	Redwood City	CN9-06	37.516°N	122.205°W	Corps		
	Redwood City Marina	Redwood City		37.516°N	122.205°W	Enterprise) Rich Ferrari	650/363-1390	
	Richardson Bay Marina (formerly Kappas Marina)	Sausalito		37.876°N	122.503°W	John Marty; Cooper	(415) 892-2778	
	Richmond City Marina	Richmond		37.902°N	122.340°W	Sharon Woods	510/263-1013	
	Richmond Inner Harbor (Corps)	Richmond	CN9-06	37.902°N	122.340°W	Corps		
	Richmond Marina Bay	Richmond		37.902°N	122.340°W			
	Richmond Outer Harbor (Corps)	Richmond	CN9-06	37.923°N	122.421°W	Corps		

	Richmond Yacht Club	Richmond	M82-57					
	San Francisco Dry Dock/BAE Systems	San Francisco	M93-13			Sean Riley		
	San Francisco Marina, City of SF	San Francisco						
	San Francisco Ship Channel (Corps)	San Francisco				Corps		
	San Leandro Bay	San Leandro		37.751°N	122.223°W			
	San Leandro Small boat lagoon	San Leandro		37.693°N	122.187°W			
	City of San Rafael)(SORRENTO CUT?)	San Rafael		37.966°N	122.506°W	John Marty; Cooper	(415) 892-2778	
	San Rafael Channel (Corps)	San Rafael		37.968°N	122.500°W	Corps		
	San Rafael Rock Quarry	San Rafael						
	San Rafael Yacht Harbor	San Rafael	M81-102	37.967°N	122.513°W	Matthew Butler	415/456-1600	
	Sausalito Debris Boat Dock (Corps)							
	Sausalito Yacht Harbor	Sausalito		37.859°N	122.479°W	Herb Madden, Jr.	415/332-5000	
	Schnitzer Steel, Oakland	Oakland		37.794°N	122.282°W	Gary Schnitzer	510/444.3919	
	Schoonmaker Point Marina	Sausalito		37.863°N	122.490°W	Michael Rainey		
	Sea Scouts	Larkspur				John Marty; Cooper	(415) 892-2778	
	Shore Terminals, Martinez	Martinez				Mike Burgett	925/228-3227	
	Shore Terminals, Richmond	Richmond				Rich Brandes		
	South Beach Yacht Harbor	San Francisco				Jim Nybakken	415/274-0562	
	Strawberry Channel/ Cove Apts	Mill Valley	M04-28			Curt Bolton		
	Suisun Channel/NY Slough Channel (Corps)	Suisun Bay		38.033°N	121.868°W	Corps		
	Suisun City Channel	Suisun	M85-87					
	Sunnyvale, City of	Sunnyvale						
	Tidewater Aquatic Center	Oakland						
	U.S. Coast Guard Station Alameda	Alameda						
	U.S. Coast Guard Station Vallejo	Vallejo						
	U.S.S. Posco Industries	Antioch						
	Valero, Benicia	Benicia	M81-79	38.027°N	122.077°W	Don Cuffel	707/745-7545	
	Vallejo Ferry Dock	Vallejo						
	Vallejo Marina North	Vallejo		38.104°N	122.266°W	Jim Haussener	707/996-1405	

	Vallejo Marina South	Vallejo		38.104°N	122.266°W	Jim Haussener	707/996- 1405	
	Vallejo Yacht Club	Vallejo	M99-26	38.104°N	122.266°W	Jim McCarthy	707/643- 1254	
	Venoco - Ryer Island	Ryer Island				John Marty; Cooper	(415) 892- 2778	

the Short Term Windows Workgroup meeting has more updated info on status of permits and work window issue

VOLUME (Range in 1000 CYS)	PERMITS OBTAIN ED	LAST DREDGED	FREQUEN CY (if known)	CONTRA C-TOR (if known)	EQUIP- MENT	DISPOSAL SITE	DMMO STATUS	START DATE (Estimated)
			annual					
				WD	C	SF-11		
			8 years	WD	C	SF-11		
			8 years					
			once	M				
			once	M	C	SF-11		
			once	M	C	SF-11		
					H	Hamilton, U		
			5 years			SF-9		
			Annual	WD	C	SF-10		

			annual					
			5 years	WD	C	SF-11		
			bi-annual	M	Hopper	SF-8 or SF-DODS		
			7 years	WD	C	SF-11		
			8 years	D	C	SF-11		
			5 years					
			5-7 years	WD	C	SF-11		
			8 years		C	SF-10 or SF-11		
			1999	WD	C	SF-11		
						SF-11		
			4-5 years	WD	C	SF-10 or SF-11		
			once	M	C	SF-9		
			4-5 years	WD	C	SF-10		
			7 years	SR		SF-11		
			2 years	WD	C	SF-10 or SF-11		
						upland (on site disposal ponds)		

			20 years			SF-11		
			4-5 Years	SR	C or H	SF-11		
			6 years	Corps		U		
				Corps				
			new work	D	C	MH, U		
			annual	Corps		SF-DODS		
			annual	D	C	SF-11, U		
			annual	Corps		SF-DODS		
			bi-annual	D	C	SF-11		
			annual	D	C	SF-11		
			annual	D	C	SF-11		
			annual	RI				
			annual	Corps				
			annual	Corps		SF-DODS		
			annual	Corps	r Dredg e			

						SF-11		
				Corps	r Dredg e	SF-8		
			5 years	WD	C	SF-10 or SF-11		
			5 years	Corps				
			10 years	WD	C	SF-11		
			5 years	WD	C	SF-10		
				M	C/Hop per	SF-9		
						SF-11		
			Unknown	WD	C/Hop per	SF-11		
			annual	Corps	Dredg e			
			Quaterly (4 X per year)	D		SF-9		
			5 years	WD	C	SF-9		

			5 years	Unknown	C	SF-9		
			5 years					

DATE (Estimated)	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS
			Club did not return phone calls
	8/1 to 11/30		
		NOAA/steelhead/salm on	Done 2002
	6/1 to 10/31	DFG herring NOAA/salmon	
	8/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Consultation completed
	3/1 to 11/1	DFG/herring NOAA/steelhead/salm on	
	6/1 to 12/1	DFG/herring NOAA/steelhead/salm on	Done 2002, maintenance maybe necessary
	6/1 to 12/1	DFG/herring NOAA/steelhead/salm on	Schedule depends on east bound lanes const.
	6/1 to 12/1	DFG/herring NOAA/steelhead/salm on	Schedule depends on east bound lanes const.
	8/1 - 10/15	NOAA/steelhead USFWS/clapper rail/moose	Complete
	6/1 to 12/1	NOAA/steelhead/salm on	
	8/1 to 11/30	NOAA/steelhead/salm on	
	8/1 to 11/30	F&WS Splittail NOAA/steelhead/salm on	

	6/1 to 12/1	NOAA/steelhead/salm on	Done 2002
	6/1 to 11/30	NOAA/salmon or smelt	
	6/1 to 11/30	NOAA/steelhead/salm on	
	8/1 to 11/30	FWS/delta smelt	Alt. Analysis
	6/1 to 11/30		Completed 2003
	6/1 to 11/30	NOAA/steelhead/salm on	
	6/1 to 11/30	NOAA/steelhead/salm on	Done 2002
	3/1 to 11/30	DFG/herring	
	3/1 to 11/30	DFG/herring, NOAA/steelhead/salm on	
	6/1-10/31	NOAA/Steelhead/Salm on/Coho DFG/Herring	window??? ; DOP - Lisa; Need Corps
		NOAA/coho	
	6/1 to 11/1	NOAA/steelhead/salm on/coho	
	1/1 to 12/31	NOAA/steelhead/salm on	Work Completed
		NOAA/steelhead/salm on	
	3/1 to 11/30	DFG/herring	
	6/1 to 11/30	NOAA/steelhead/salm on/coho	
	6/1 to 12/31	NOAA/steelhead/salm on	
	8/1 to 11/30	NOAA/steelhead/salm on	

	3/1 to 11/30	DFG/herring, NOAA/steelhead/salm on	
	6/1 to 11/30	DFG/herring, NOAA/steelhead/salm on	
	10/15 (consult)	NOAA/steelhead/salm on	Work Complete for 2003
		NOAA/steelhead/salm on	Work Complete for 2003
	N/A	N/A	Consultation complete
	All Year	DFG/herring NOAA/steelhead/salm on	Emergency, Dredging in May O&M started in August
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Consultation
	6/1 to 11/30	NOAA/steelhead/salm on	
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Completed end of May
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	
		NOAA/salmon?	
		NOAA/steelhead/salm on	
	9/1 to 6/1	NOAA/steelhead/salm on	Urgent Work Completed, Consultation
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	Consultation, Work in Progress
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	

			Completed for 2003
	6/1 to 11/30	NOAA/steelhead/salm on	
	6/1 to 11/30	NOAA/steelhead/salm on	Completed for 2003
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on/coho	
	6/1 to 10/31	NOAA/salmon	
		Tier 1 exclusion requested	
	6/1 to 11/30	DFG/herring NOAA/steelhead/salm on	
	6/1 to 11/30	NOAA/steelhead/salm on	consult req'd
	6/1 to 11/30	NOAA/steelhead/salm on	knockdowns are anticipated in 2003
	8/1 to 10/14	NOAA/steelhead/salm on	insufficient time to complete task

	8/1 to 10/14	NOAA/steelhead/salm on	
	6/1/ to 12/1	NOAA/steelhead/salm on	

PROJECT NAME	CITY/ LOCALE	YEAR	EPISODE 2008 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS
Alameda Point Navigational Channel	Alameda	2008	424	RBC	2005	2-3 years	none yet	C	SF-11	SAR Appr.	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway, likely to complete within the window
Imports (aka Port of Benicia, Benicia Port Terminal, Benicia Industries)	Benicia	2008	17-19	RBC	2003				SF-9	Tier I Denied; SAP Appr.; Test Results and retesting done 1/2 material SUAD for in-Bay, 1/2 NUAD, may leave or knockdown			8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Complete
Antioch Marina Boat Ramp	Antioch	2008	2						upland (Chippis Island)	Not yet gone to DMMO	fall 2008		Need to consult for smelt year round	NOAA/steelhead/salmon FWS/delta smelt (less than 10 ft depth)	Not in LTMS agencies' jurisdiction ** Jim to check status
BAE Systems/SF Drydock - DD2	San Francisco	2008	140-170	RBC	(DD1 dredged in 2007)	2-3 years		C	SF-11	Tier I Appr.; Testing done; SUAD for upper layers; bottom layer NUAD (High PAHs)	June		3/1 to 11/30	DFG/herring	Complete
Benicia Marina	Benicia	2008	10	RBC	2007	Annual	SRC	C	SF-9	Testing Complete	October	November	Need to consult for smelt year round	NOAA/steelhead/salmon FWS/Delta smelt (depth in marina < 10 ft)	Consultation complete, Underway
Chevron Long Wharf - maintenance dredging	Richmond	2008	80	RBC	2007	Annual	D	C	SF-11	Testing Complete			6/1 to 11/30	NOAA/Steelhead/salmon DFG/herring	DOP Approved. Dutra - 7,000 cy per day? Underway
Conoco Phillips	Rodeo	2008	40	RBC	2007	Annual		C	S-8 and SF-9	Tier I Appr.	August	September	6/1 to 11/30	NOAA/Steelhead/salmon	Complete
Corps - Main Ship Channel	San Francisco	2008	< 500	RB	2007	Annual		H	SF-8	Tier I Req.	1-Jun		year round		Complete
Corps - Sausalito Debris Boat Dock - Letter from Lenon Way	Sausalito	2008	18-20	RB	1978	30 years	Britian Industry	C	SF-11	Testing Complete			6/1 to 11/30	NOAA/steelhead/salmon n DFG herring	Underway, some contaminated sediment to Berth 10
Corps O & M - Oakland Federal Channel (Inner)	Oakland	2008	200	RB	2007	Annual	DMJV	C	Hamilton, SF-DODS	Tier I Appr. For SF-DODS; SAP for Hamilton Appr.	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Ongoing
Corps O & M - Oakland Federal Channel (Outer)	Oakland	2008	150	RB	2007	Annual	DMJV	C	Hamilton, SF-DODS	Tier I Appr. For SF-DODS; SAP for Hamilton Appr.	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Ongoing

Corps O & M - Redwood City Harbor	Redwood City	2008	350	RB	2005	Annual		H	Bair Island	Testing Complete	1-Jun		6/1 to 12/31	Consultation complete Steelhead	FWS requested until January 31st for levee breach. Corps is requestig two extra weeks of dredging from NOAA. NOAA is drafting a letter.
Corps O & M - Richmond Harbor Channel (Outer)	Richmond	2008	120	RB	2007	Annual		Hopper	SF-11,	SAP Appr; testing done; All material SUAD	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
Corps O & M - Pinole Shoal	Pinole	2008	70	RB	2007	Annual		C	Hamilton	<u>Testing done</u>	1-Nov		6/1 to 11/30	NOAA/steelhead/salmon	Pre-dredge surveys done. Not under contract yet. Disposal at Hamilton; DV 24 Clamshell and doing Suisun and Pinole simulataneously. Equipment is here and pre-dredge survey is underway. Dredge starting on weekend.
Corps O & M - Richmond Harbor Channel (Inner)	Richmond	2008	50-60	RB	2007	Annual		Hopper	SF-11	SAP Appr.; Test Results done; Material SUAD except portion by Santa Fe Channel *	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete - Santa Fe Channel not dredged this year
Corps O & M - Suisun Channel (1st) and New York Slough	Suisun	2008	60	RB	2007	Annual	Dutra	C	SF-16,	Tier I Appr.	1-Aug		8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Dredge coming from Alaska and other location... second week in November Columbia arrives on Nov 24th...4 days at New York Slough, then to Redwood City
Emeryville City Marina Access Channel	Emeryville	2008	44-45	RBC	2003	5 years	Manson	C	SF-11	Testing Complete	22-Oct		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Trying to finish before window.DFG has provided consultation, dredging can continue through Dec/Jan
Emery Cove Condomium Association (last)	Emeryville	2008	60	RBC	2002	5 years	?	C	SF-11	Testing Complete			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	DFG has provided consultation, dredging can continue through Dec/Jan
Emeryville City Marina (Marinas International)	Emeryville	2008	50	RBC	2002	5 years	SR	E	SF-11	Testing Complete	1-Nov		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DEG/least tern	Underway
Lowrie Yacht Club	San Rafael Canal	2008	14	B	2004	3-4 years	WD	C	SF-11	Need Request	December		Year Round	NOAA steelhead/salmon	Year 'round consultation with SF-11 disposal in winter, SF-10 otherwise
Marin Rowing Club	Larkspur	2008	2.9	RBC	2006	3-4 years	SRC	C	SF-10	Tier 1 Appr.			6/1 to 11/30	FWS & DFG/least tern	Complete
Martinez Marina	Martinez	2008	35	RBC	2006	3-4 years		H	upland (onsite disposal ponds)	SAP Appr.; testing done; Area A SUAD and suitable for upland; Upper corner of Area C OK for upland; Areas with high Hg not being dredged	summer/ fall		8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	DOP Approved; consultation - requested from Corps - need to send packet to resource agencies Dredging underway
Paradise Cay Yacht Club	Tiburon	2008	5	RBC	2007	3-Feb	SR	E	SF-11	Tier I Appr.			6/1 to 10/31	DFG/herring, NOAA/steelhead/salmon	Underway, may request consultation
Port of Oakland - BART Work	Oakland	2008	0 *	RB	Ongoing	New Work	D	C	SF-DODS	Tier I Granted	June/ July		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Complete
Port of Oakland - Berths 30, 32, 33, 35 grading/knockdowns	Oakland	2008	10	RBC			D	C	in-berth		15-Mar		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DEG/least tern	Knockdowns completed for Berths 30, 32, and 33.

Port of Oakland - Deepening (new work - Corps) Phase 3E	Oakland	2008	2,300	RB	Ongoing	New Work	MDJV	C	Hamilton	Testing Complete			N/A	N/A	Ongoing - scheduled completion date is June 2009. Most of outer harbor is completed.
Port of Oakland Maintenance - Berths 22, 24, 25, 26, 35, 37, 60-63	Port of Oakland	2008	60(50)	RBC	2007	Annual	D	C	SF-11	Need volume calcs, SAPs	1-Aug		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway
Port of San Francisco, Berth 35 E & W	San Francisco	2008	45	RB	2007	Annual	D	C	SF-DODS	Testing Complete	1-Oct		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	delayed start too November 17 due to equipent shortage/delay
Port of San Francisco, Berth 27	San Francisco	2008	60	RB	2006	1-2 years	D	C	SF-11	Testing Complete	1-Oct		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
Port of San Francisco, Berths 80/92/94/96 & Islais Creek	San Francisco	2008	120	B	2005	2-3 years	D	C	SF-11	SAP Appr.; testing done; Portion of Islais Crk is NUAD; rest of material SUAD; Tier I Appr. for Berth 80D	1-Jun		6/1 to 11/30	NOAA/steelhead/salmon	Complete
Port Sonoma	Petaluma	2008	80-100	BC	2007	Annual	CD	H	Onsite Ponds/Carneros	Testing complete	December		12/1 to 1/30	NOAA/steelhead/salmon	Consultation completed
Richmond (Harbor) Yacht Club	Richmond	2008	20	RB	2004		SR	C	SF-11	Tier I Appr.			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
San Francisco Marina, City of SF	San Francisco	2008	50 mud; 100 sand	RB	2005		Jerico	C/H	SF-11/ upland	Testing Complete	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Request 11/1 start
San Rafael Rock Quarry	San Rafael	2008	27.3	RB	2005	4-5 years	D		SF-10, Hamilton	No Tier I; SAP Appr.; Testing done; Material SUAD			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Application in to all agencies. IAA is pending. Corps PN has gone out.
San Rafael Yacht Harbor	San Rafael	2008	10-14 (some done in 2007)	RBC	2007		doing work themselves		SF-10, SF-11	Testing Complete for main basin; SAP Appr. to test additional problem areas	Begun in fall 2007		(disposal at SF-10 6/1 to 11/30; dispose at SF-11 12/1	NOAA/steelhead/salmon	Contaminant issues in some areas of marina so need upland site. New consultation requested to go year round to SF-10
Suisun City Channel & Marina - FWS needed	Suisun	2008	100-120	R	2003	5 years		C	Pierce Island	SAP Appr., Testing Complete.				NOAA Steelhead/Salmon FWS Delta smelt	Has consultation to dredge until December 31st from FWS and NOAA until Jan?.
U.S. Coast Guard Station Alameda	Alameda	2008	35	RBC	1986	20 years	D, ERRG	C	Berth 10, upland	Testing Complete; Material NUAD (contam issues, high toxicity)			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Complete
U.S. Coast Guard Station Vallejo	Vallejo	2008	12	R	2003	2-3 years		C	SF-9	Testing Complete			8/1 to 10/15	FWS/Delta smelt NOAA/steelhead/salmon DFG/dungeness crab	Complete
U.S.S. Posco Industries	Antioch	2008	2 (cleanup)	RC	2007	4-5 years	WD	C	Winter Island	Testing Complete			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern (without Dungeness	Complete

Project Assigned To	PROJECT	CITY/LOCALE	BCDC Permit #	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT
BG	Aeolian Yacht Club	Alameda	M85-63	2007	18	RB	93/94	6-8 years	SR	C
BG	Bel Marin Keys (North Lagoon)	Novato	M97-3	2007	170	RC		unk	Camizon	H
JH	Benicia Marina	Benicia	5-77	2007	17	RBC	2005	Annual		
MD	Chevron Richmond Long Wharf	Richmond	M84-43	2007	160	RBC	2006	annual	Dutra	C/H
MD	Clipper Yacht Harbor Basin 2 Deepening	Sausalito	M94-6	2007	18	RBC	n/a	one time project	WD	C
	Conoco Phillips, Rodeo	Rodeo	M74-69	2007						
JH	Kahn Dock	Marin	M07-16	2007	7.3	RB	1999		WD	C
BG	Marin Rowing Association	Greenbrae	M87-32 ??	2007	1	RBC	2006	biennial	SR	
MD	Marin Yacht Club	San Rafael	M92-45	2007		RBC	2004	3-4	SR	C
BG	Marina Vista	San Rafael		2007	6	RBC	2005		SR	C
MD	Napa Valley Marina	Napa	20-78	2007		BC	2005		own	H
JH	Oyster Point Marina	South San Francisco	1-77	2007	100				SR	
	Pacific Refining Company	Hercules	M89-53	2007	0.0375					

	Paradise Cay Marina/ Yacht Club (aka Pullman Building Company)	Tiburon	M96-9 (formerly M02-15)	2007			2005 or 2006?		SR	
BG	Pinole Shoal (Corps O&M)	Pinole	CN11-03	2007	175	RB	2006	Annual	Essayons	H
MD	Point San Pablo Yacht Harbor	Pt. Richmond	M87-60	2007	40	RB				
JH	Port of San Francisco Pier 39	Port of SF	M02-713	5/29/1905	1/8/1900	RBC	1/20/1905		SR	C
BG	Port of Oakland - BART Work	Oakland		2007	88	RB	Ongoing	New Work		C
BG	Port of Oakland Deepening (new work - Corps) Phase 3E	Port of Oakland	2-04	2007	1.5 Hamilton; 390-SF DONS	RBC	Ongoing	new work	Manson/Dutra JV	C
BG	Port of Oakland Inner/ (Corps O&M)	Port of Oakland outer harbor work	CN11-03	2007	200	RB	2006	annual		C
MD	Port of Oakland Maintenance - Berths 20, 21, 23, 30, 32, 33, 37, 55-59, 60-63,	Port of Oakland	M03-39	2007	115	RBC	2006	annual	Vortex	C
	Port of Richmond	Richmond	M96-17	2007					D	
BG	Port of SF (berth 35 E & W)	Port of SF		2007	60	RBC	2006	annual	D	C
BG	Richmond Inner Harbor Channel (Corps)	Richmond	CN11-03	2007	350	RBC	2006	annual	D	C
BG	Richmond Outer Harbor (Corps)	Richmond	CN11-03	2007	318	RBC	2006	annual	Essayons	H
MD	San Francisco Dry Dock/BAE Systems (Drydock I)	San Francisco	M93-13	2007	42	RBC	2004	2-3 years		C
BG	San Francisco Ship Channel (San Rafael)	San Francisco		2007	575	RBC	2006	annual	Essayons	H
JH	San Rafael (Sorrento Cut) - (contact is Western Dock, John Marbo)	San Rafael		2007	0.6	RBC	2006	5 years	WD	C

MD	San Rafael Yacht Club/Harbor	San Rafael	M81-102	2007	14	RB			own equipment	C
MD	Strawberry Channel/Cove Apts	Mill Valley	M04-28	2007	7	RBC	2006	10 years	SRC	C/H
BG	Suisun Bay/NYSlough Channel (Corps)	Suisun Bay		2007	80	RB	2006	Annual		C
BG	Valero, Benicia	Benicia	M81-79	2007	80 +1 KD	RBC	2005	Quarterly (4 X per year)	D	C

DISPOSAL SITE	DMMO	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS
SF-11	Testing Complete	June 1, 2007		8/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/least tern	Some cord grass in basin; Also a hot spot issue, 1000 cy needs an upland disposal site for contaminated material (to go to Winter Island?) - material to be loaded on a special flat deck barge with sides, rehandled, and go to landfill, PoSC dewatering and separate on parking lot every ready - Water Board OK with this? **, upland - dredging underway for clean sediment
Hamilton, U	Testing Complete			8/1 - 10/15	NOAA/steelhead USFWS/clapper rail/mouse	Complete
SF-9	Tier I Granted: Additional Tier 1 is needed			6/1 to 11/30 (will go outside window)	NOAA/steelhead/salmon/delta smelt	Need to consult for smelt; yes
SF-11	Need to Provide Results			6/1 to 11/30	NOAA/steelhead/salmon/herring	contaminants on site, Significant shoals in approach, seeking amendment; DOP has been submitted to Corps; Want to proceed with dredging berths
SF-11				6/1 to 10/31	NOAA/steelhead/salmon DFG/herring	Underway; should finish on 10/23
				6/1-11/30	NOAA/Steelhead/salmon USFWS/Delta Smelt	
SF-11	Testing Complete			6/1-10/31	NOAA/Steelhead/Salmon/Coho DFG/Herring	Going to make it inside window??? ; DOP - Lisa; Need Corps permit - 14 days
SF-11	Tier I for Ep1 September 07	June		6/1 to 10/31	NOAA/steelhead/Chinook /Coho DFG herring	Complete
SF-11	Tier 1			6/1 - 11/30	NOAA/steelhead/Chinook/herring	Complete
SF-10	Tier 1 Granted			6/1 - 11/30	Steelhead/Salmon	Complete
				8/1 - 12/31	Steelhead	has consulted, dredging in December OK; complete project under NWP
SF-11		June 1		6/1 - 11/30		Need to consult, public notice is out; EFH; consultation on deepening →potential formal → green sturgeon
sidecast		9/11/2007	13/2007			

SF-10 or SF-11		11/9/2007	1/9/2007			
Hamilton, SF-10		June		6/1-11/30	NOAA/steelhead/salmon	Essayons
SF-10	Tier I June 05			6/1 to 11/30	NOAA/steelhead/salmon	DOP issued Aug 2005; No equipment, informal consultation required due to lack of equipment - Rob -> NOAA -> David; Contractors can give less money during restricted period
U	SAP Approved Test Results Pending			6/1 - 11/30	Herring/Salmon/Steelhead	DOP approved, upland site - winter Island dikes need to be prepared; **Need to contact Beth regarding sediment quality
SF-DODS	Tier I Granted					
Hamilton, Montezuma, SF-DODS	Testing Complete			N/A	N/A	Ongoing; Levine owes P of O money - will accept sand for Least Tern islands as exchange; pipe is critical; Post Dredge and Hamilton in November
DODS Montezuma	Req Tier I - SF-DODS			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	Consultation Needed; Have pre-dredge survey; waiting for Richmond for Ocean going scows; may need to dredge outside window and consult for herring and steelhead (willing to have herring monitor); also, may need to reprogram money unless have a Continuing Resolution on Nov 16
SF-11	Some Tier 1 Testing Underway	August 1, 2007		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	Underway
SF-DODS		10/14/2007	1/17/20	6/1 to 11/30		
SF-DODS	Testing Complete			3/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
SF-DODS	Tier I from EPA	April		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway
SF-10/SF-11	Tier I pending AA	June 1, 2006		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	complete
SF-11	Testing Complete			6/1 to 11/30		Dry Dock 1 Complete, Dry Dock 2 -2008
SF-8, Ocean Beach	Tier I Jan 2006			Weather Imposed		Complete
SF-10 or SF-11	SAR Aug 03	Unknown		year-round	NOAA/steelhead/salmon	Underwayby last week of October

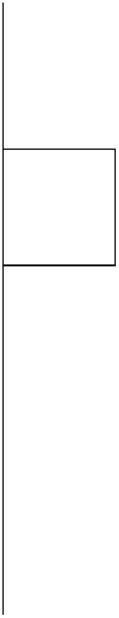
SF-11	Testing Complete			6/1 - 11/30		Mercury issues; hotspot - underway for clean material, removing 100 yds at a time - may need to consult Corps; ** May to check with Matt Butler on anticipated volume and consultation
SF-11	Tier I Granted	June		6/1- 11/30	NOAA/steelhead/salmon DFG/herring USFWS/clapper rail	Complete
Hamilton, SF-16	Tier I Granted	August		8/1 to 11/30	NOAA/steelhead/salmon USFWS/delta smelt	Underway
SF-9		Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30	NOAA/steelhead/salmon	

HAVE POST DREDGE SURVEY ?	POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?
yes	12/7/2007	BG	ok	
No				Yes
Yes	10/29/2007	M. Delaney	* Authorized to remove 12,385 from Basin 2 for 1 time deepening as well as 200,000 cy of maint dredging from Berths 1-4. Actually removed 13,256 from Basin 2. * Authorized depth was minus 11 plus 1 foot overdredge; barely exceeded minus 12 in a couple spots by 0.2-.0.3 feet	NA
Yes	7/24/2007	J. Hamburger	* Authorized to dredge up to 90,000 cy per year for five years, for a total of 450,000 cy, to be completed by April 16, 2009; actually dredged 27,655 cy in Areas 1, 2 and 3 * Authorized to dredge to -40' MLLW plus 2 in Area 1, -35' MLLW plus 2 in Areas 2 and 3, and -22' MLLW plus 2 in Areas 4 and 5; all PD depths at or below design depth	NA
yes		BG		Yes
yes		BG		
Yes		M. Delaney	* Authorized to remove 42,000 cy over three episodes; have removed all material authorized on this amendment * Authorized depth of minus 10 feet plus 1 ft overdredge; did not exceed 10 feet at all	NA
Yes		J. Hamburger	Report described depths and volumes dredged to find buried pipeline as required by SLC. Volume was less than permitted volume.	NA

Yes	11/17/2007	J. Hamburger	*Authorized to maintenance dredge 84,000 cy over five years (to be completed by Oct. 17, 2007) - removed 30,916 cy in 2007 episode * Still waiting for previous post-dredge surveys * Authorized to dredge to -9' MLLW plus 1 - actually dredged to -5.8 to -9.6	
No				Yes
No				Yes
Yes	10/22/2007	J. Hamburger	* Authorized to maintenance dredge up to 44,000 cy over five years (to be completed by August 23, 2012) * Actually dredged 24,600 cy in 2007 episode * Authorized to dredge to -38' MLLW plus one * Actually dredged to -37' to -40' MLLW	NA
Yes	6/6/2007	M. Delaney	* Authorized to remove 127,000cy from DD1 over five years; removed approx. 36,631 cy in 2007 episode. * Authorized depth was minus 45 feet plus 2 feet overdepth; did not exceed minus 45 anywhere.	NA

No			*Had to stop due to windows closing - will resume episode in 2008??	
No				Yes
Yes	7/15/2007; 11/2/2007	J. Hamburger; M. Delaney	Event 1: 15,850 cy Event 2: 9,127 cy Event 3: 7,562 cy Event 4 (July): 9,500 cy Event 5 (Sept): 6,849 cy Annual Quantity Dredged to Date: 48,888 cy Annual Authorized Quantity: 80,000 cy	NA





PROJECT	CITY/LOCALITY	BCD C Permit #	YEAR OF EPISODE	1000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE
Alameda Point Navigational Channel	Alameda		2006	20	RBC	2005		Manson		SF-11
Benicia Industries aka Ampports	Benicia		2006	18-20	BC		annual			SF-9
Benicia Marina	Benicia	5-77	2006	15	RBC	2005	Annual			SF-9
Berkeley Marina (A-D)	Berkeley		2006	8						SF-11
Berkeley Marina (H-I)	Berkeley		2006	7	RBC					SF-11,U
Black Point Launch Ramp	Novato		2006	0.23		2004	Annual	WD	C	SF-10
Chevron Richmond Long Wharf	Richmond	M84-43	2006	150	RBC	2005	annual	D	C/H	SF-11
Harbor Maintenance	Sausalito	M94-6	2006	13	RBC	2004	5 years	WDE	C	SF-11
ConocoPhillips, Rodeo	Rodeo	M74-69	2006	30	RBC	2005	biennial		C/H	SF-9
Corinthian Yacht Club	Tiburon	M81-67	2006	12	RBC	2005	3 years	WDE	C	SF-11
Coyote Point Marina	San Mateo	M93-14	2006	90	RBC	2003	biennial		C/H	SF-11
Larkspur Ferry - Channel	Larkspur		2006	600	C	2004	annual	D	C	SF-11
Levin Richmond Terminal	Richmond		2006	31	none					Montezuma
Mare Island Army Reserve (Berth 22/23)	Napa	CN4-02	2006	30	RBC	2003			C	SF-9
Marin Rowing Association	Greenbrae		2006	2.5	RBC	1998/99	biennial	SR	E	SF-11
Napa Valley Marina	Napa	20-78	2006	12	RBC	2005		own	H	on-site
Paradise Cay Homeowners Club (aka Pullman Building Company)	Tiburon	M94-68	2006	35	RB				C	SF-11
	Tiburon	9 (formerly M02)	2006	70	RBC	2005	4-5 Years	SR	C/H	SF-10 or SF-11

Pinole Shoal (Corps O&M)	Pinole	11-03	2006	30	RBC	2005	Annual	Corps	H	
Point San Pablo Yacht Harbor	Pt. Richmond	M87-60	2006	40	RB					SF-10
Berths (new work - Montezuma Wetlands Project, Corps) Phase 3E	Port of Oakland		2006	310	RBC		new work	D	C	A, SFDO DS, Hamil
Port of Oakland Deepening (new work - Middle Harbor, Corps) Phase 3D	Port of Oakland	2-04	2006	990-1 mil	RBC		new work	Manson	C	Montezuma
Port of Oakland Inner/Outer (Corps O&M)	Port of Oakland	11-03	2006	300	RBC	2005	annual	Corps	C	Montezuma, MH
Maintenance (55,56,57,58,59,67,68)	Port of Oakland		28-Jun-05	1.8	RBC	7-Jun-0	annual		C	SF-11
Federal (22,23,24,25/26,30)	Port of Oakland		2006	197	RBC		new work		CH	A; SF-8; SFDO
Port of SF (berth 35 E & W)	Port of SF		2006	60	RBC	2005	annual	D	C	SF-DOD S
Port of SF Berth 27	Port of SF		2006	CY133	RBC	2006		D	C	U
Port Sonoma (aka Desert Aggregates)	Sonoma	M97-45	2006	100	RB	2005	annual		H	U
Richmond Inner Harbor (Corps)	Richmond	11-03	2006	900	RBC	2005	annual	Corps	C	SF-DOD S
Richmond Outer Harbor (Corps)	Richmond	11-03	2006	275	RBC	2005	annual	Corps	H	SF-11
Richmond Yacht Club	Richmond	M82-57	2006	10	RBC	2004		SR	C/H	SF-11
Schnitzer Steel	Oakland	M84-35	2006	25	R	2000			C	SF-11
Shore Terminals, Richmond	Richmond		2006							
Strawberry Channel/Cove Apts	Mill Valley		2006	40	RBC	2005	10 years	SRC	C/H	SF-11
Bay/NYSlough Channel (Corps)	Suisun Bay	11-03	2006	300	RB	2005	Annual		C	SF-16
Valero, Benicia	Benicia	M81-79	2006	80 +1 KD	RBC	2005	Quarterly (4 X per year)	D	C	SF-9

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DMMO	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECIES	COMMENTS	HAVE POST DREDGE SURVEY?
SAR approved. AA submitted			8/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/least tern	Potential Knockdown	
			8/1-11/30	NOAA/steelhead/salmon/delta smelt	Completed	
Programmatic SAP approved Feb 2006			? to 11/30	NOAA/steelhead/salmon/delta smelt	Need to consult for Delta smelt	
SAR approved March 2005			8/1-11/30	NOAA/steelhead/salmon USFWS/tern/herring	Will submit Tier I request for additional volume	
SAR approved March 2005			8/1-11/30	NOAA/steelhead/salmon USFWS/tern/herring	Not dredged in 2005	
Will need Tier I			9/1 to 10/15	NOAA/steelhead/salmon	Cooper is investigating	NO *
Submitted SAP	September 14, 2005	Oct-05	6/1 to 11/30	NOAA/steelhead/salmon/herring	Corps waiting for additional 2005 postdredge info.	Yes
SAR approved July 2005	June 8, 2006	Jul-06	6/1 to 10/31	NOAA/salmon/herring	Currently dredging	
			6/1-11/30	NOAA/Steelhead/salmon USFWS/Delta Smelt	Brenda will call Dennis	Yes
SAR approved January 2004	Unknown	Sep-05	6/1-10/31	NOAA/Steelhead/salmon DFG/herring	Corps waiting for 2005 postdredge	Yes
Tier I Jan 2006	June 15, 2006	August	6/1 to 11/30	NOAA/steelhead/salmon DFG/herring(?)		Yes
SAR approved March 2006	June 12, 2006	Oct-06	6/1-10/31	NOAA/steelhead/salmon/coho USFWS/Clapper rail/harvest mouse	Complete	
SAR approved 9/9/05	October 16, 2006		6/1-11/30	steelhead/salmon/herring	Need to submit AA	
Approved	October 3, 2006	Nov-06				Yes
Ep1 September	June		6/1 to 10/31	NOAA/steelhead/coho/chinook DFG herring	Concurrent Dock Replacement	Yes *
Tier one approved	October		Aug-December	steelhead		Yes
SAR June 05		20-Nov-05	6/1-10/31	DFG/herring, NOAA/steelhead/salmon	Concluded consultation	Yes
SAR June 05	November 9, 2007	Nov-07	6/1 to 10/31	DFG/herring, NOAA/steelhead/salmon	Dredged sporadically	No

			6/1-11/30	NOAA/steelhead/salmon	Tier I under review; need AA	Yes
Tier I June 05			6/1 to 11/30	NOAA/steelhead/salmon	DOP issued Aug 2005	
SAR June 2005			N/A	DFG/herring NOAA/steelhead/salmon/least tern	Ongoing	Not yet
SAR, 1998	January 1, 2006	Jun-0	N/A	N/A	Ongoing	Yes (for Berths 22-26, 30, 67-68)
Tier I June 05			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	To be done with new work	Yes
Submitted Tier I, Berth 55, 56	August 1, 2006		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon/least tern	Pending episodic approvals	Yes
	Ongoing	3/1-11/30		DFG/herring NOAA/steelhead/salmon/least tern	Electricity issues	Yes
SAR March 2006	Completed		3/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Completed, Survey being done	
SAR Approved	New Episode		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Port conducting reconnaissance survey	
	October 18, 2006	-Dec-0	7/1-11/1	NOAA/steelhead/salmon	Disposal issues at Carneros River Ranch w/ Sonoma Land Trust/ On site Dredge Barge	Yes
Tier I from EPA	September		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	requesting consultation	Yes
Tier I pending AA	June 1, 2006		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete	
SAR October 04 Ep 2	June 1, 2005	-Nov-0	6/1 to 11/30	NOAA/steelhead/salmon	Dredging episode 1 & 2. Using 6 in overdepth. Dredging almost complete	Yes
	October 28, 2006	-Nov-06				Yes
Tier I July 03	June		6/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/clapper rail	Continuation of 2005 dredging in Cove Apartments. DOP submitted but will be held until 2005 postdredge issue resolution	
Tier I pending AA	June		8/1 to 11/30	NOAA/steelhead/salmon USFWS/delta smelt	Dredged w/ Pinole	Yes
	Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30	NOAA/steelhead/salmon		Yes

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POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?		
		Could not find record of the project			
20-Oct-06	Yes	Significant exceedance of overdredge allowance in 50% of Berth 4 - Maneuvering Area, Berth 4 and Berth 3 by average of 0.5 - 0.75 ft. * authorized to remove 200,000 cy and actually removed 204,408 cy * Sent us new better version of the PD survey in March			
		Doesn't look like they dredged in 2006 - Found PD Survey from 2005 for Basin 2 and 4 in permit file.			
7/29/2006	J. Hamburger	five years, for a total of 450,000 cy, to be completed by April 16, 2009; actually dredged 42,884			
25-Sep-06	Yes	* PD Survey for episode 2 * Minimal exceedance of overdredge allowance in a few places by an average of 0.2 - 0.4 feet * Authorized to remove 11,900 cy and actually removed 19,940 cy			
7/7/2006	Yes	* Authorized to remove 300,000 cy over five years; removed 26,100 cy this episode * Minimal overdredge exceedances by average of 0.2 - 0.3 ft in Areas 1 and 2			
11-Oct-06	Yes	* PD Survey for 2006 Episode * Gross exceedance of overdredge allowance in 60-75% of area of Piers 22 and 23 by avg of 0.5 - 1.5 ft * BCDC CN authorizes the removal of 60,000 cy; actually removed 48,144 cy			
	No	Have electronically			
Jan-07	No	AS OF 3/10/07 - left phone message for Justin Semion			
20-Nov-06	Yes	* Authorized to remove 100,000 cy of material over five years - removed 26,584 cy in 2006 episode * Exceedance of overdredge allowance in Channels A, B, and C by an avg of 0.2 - 0.5 ft for 25-40% of areas; Exceedance of overdredge allowance in Channel D, and South Channel by an avg of 0.2 - 0.5 ft for 25-25% of area; occasional exceedances of overdredge allowance in Channel E, and South Channel			

11/21/2006	Yes	* Not sure where authorized dredge boundary is - looks like entire half of channel exceeds overdredge depth allowance by 2 feet		
		Emailed Rita Foti for PD Surveys		
November 2006-January 2007	Yes	Berths 22-26, 30, and 67-68; actually removed 95,715 cy * Significant exceedance of authorized overdredge in Berths 22, 23 and 30 (10-15% of area); minimal exceedance in Berth 24		
1/4/2006	* No	* Looks like authorized dredged depth is -42' MMLW (plus 2' overdepth allowance); entire channel is several feet deeper in PD survey ??		
	No			
	No			
19-Dec-06	Yes	*Removed 66,000 cy from marina and placed 9,000 cy in disposal ponds; far less than was authorized in both cases.		
1/16/2007	Yes	*A couple problem areas that exceeded authorized dredged depth by average of 0.5-1 ft; otherwise, minimal exceedances		
19-Nov-05	Yes	* PD Survey for episode 1,2 * Authorized to dredge 28,000 cy; actually removed 27,458 cy * Minimal exceedance of overdredge allowance by no more than .025-0.50 ft.		
6-Nov-06	Yes	* authorized to remove 30,000 cy (over five years) and actually removed 9,655 cy * Significant exceedance of authorized overdredge depth over 25-30% of dredge area by average of 0.1-0.3 ft. * PD Survey re-sent to us but new copy still hard to read		
11/8/2006	No			
April 7, 2006 July 23, 2006 September 21, 2006	Yes	* Authorized to remove 80,000 cy of sediment annually; removed 15,850 in the first event (feb 07)* * Essentially no exceedance of authorized overdredge depth PD Survey sheets never seem to include dredge boundary; Pre-D sheets do however		

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	PROJECT	CITY/LOCAL	BCDC Permit#	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED
2	Arques Shipyard & Marina	Sausalito		2005	10	RBC	2004
9	Bel Marin Keys (Creek)	Novato		2005	61	RBC	
5	Benicia Marina	Benicia	5-77	2005	15	RBC	2005
13	BP Terminal	Richmond		2005	20	RBC	2004
33	Napa Valley Marina	Napa	20-78	2005	15	RB	
36	Oakland Yacht Club	Oakland		2005	0.5	R	
42	Petaluma River (Corps O&M)	Petaluma River		2005	250		
26	Port of Oakland Deepening (new work - Middle Harbor, Corps) Phase 3D	Port of Oakland	1-03	2006	990- 1 mil	RBC	
44	Port of Oakland Maintenance (berths 60-63)	Port of Oakland		2005	120	RBC	2003
47	Port of SF (Berths 80/90/	Port of SF		2005	220	RBC	2002/ 2003
48	Port of SF (Fisherman's Wharf)	Port of SF		2005	45	RBC	2000
49	Port of SF (South Beach	Port of SF		2005		RBC	
50	Redwood City Harbor (Corps)	Redwood City		2005	250	RBC	
55	Richmond-San Rafael Bridge Retrofit			2005		RBC	

61	San Rafael Rock Quarry	San Rafael		2005	6		
72	US Coast Guard Station Golden Gate	Sausalito		2005	6.5	C	
43	Valero, Benicia	Benicia	M81-79	2005	80 +1 KD	RBC	2004
82	Vallejo Yacht Club	Vallejo	M99-26	2005	122.266°W	Jim McCarthy	707/643-1254

FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO	START DATE	FINISH DATE	WORK WINDOW
	WD	C	SF-11	Tier I for Ep1A	June	Aug	6/1 to 10/31
		H	U, Levaroni	Tier I, June 2005			9/1-11/30
Annual			SF-9	Programmatic SAP approved Feb 2006	November 21, 2005	29-Dec-05	? to 11/30
		C/H	SF-11, Winter Island				6/1 to 11/30
		H	Napa Sea Ranch	SAR for Ep1 Jan 05			7/1-12/31
one time project		C	SF-11	SAR June 05			8/1-11/30
6 years	Corps		U	20		30-Oct-02	8/1 to 10/15 (consult)
new work	Manson	C	Montezume	SAR, 1998	January 1, 2006	1-Jun-06	N/A
annual	D	C	SF-11, U	SAR November 04	September 1, 2005	15-Sep-05	8/1 to 11/30
Biennial	D	C	SF-11	SAR October 2005	March 28, 2005		6/1 to 11/30
3-5 yrs	Cooper	C	SF-11	SAP June 04	September 1, 2005		6/1 to 11/30
annual	Corps			SAP Feb 05			6/1-11/30

			SF-10				n/a
annual		C	SF-11	SAR April 05			6/1 to 10/31
Quarterly (4 X per year)	D	C	SF-9		Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30
					28-Apr-05	28-Apr-05	Need to consult year round for Delta Smelt

CONSULT AGENCIES/ SPECIES	COMMENTS	HAVE POST DREDGE SURVEY?	POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?
DFG/herring NOAA/salmon	Dredging Completed					
NOAA/steel head USFWS/clapper rail						
NOAA/steel head/salmon delta smelt		Yes	5-Jan-06	Yes	* PD Survey for Event 1 and 2 * Removed 6,642 cy of material * Minimal exceedances of authorized overdredge depth by 0.1-0.2 ft in outer channel and by 0.5-1.0 ft in docks B,C, and D	
NOAA/steel head/salmon DFG/herring						
	Timing issues. Need to consider salinity of material if it is to be used as farm cover					
NOAA/steel head/salmon USFWS/leas tern DFG/herring	Clearing storm drain outfall. Need USACE and RCDC					
NOAA/steel head/salmon	Formal Consultation Work Complete for 2003					
N/A	Ongoing	Yes (for Berths 33-33)	12/9/2005	Yes	cy from Berth 32, 33 and gap between them; Actually removed 102,737 cy. * Dredge footprint not clearly labelled on map * Somewhat significant overdredge occurrence in approx 5-10% of dredge area by average of 0.2-0.3 ft below authorized overdredge depth; a couple bad areas where exceedance by 0.6-1.0 ft	
NOAA/Steel head/Salmon DFG/Herring USFWS/leas tern	DOP issued 8/8/05					
NOAA/steel head/salmon	Will be submitting DOP shortly					
DFG/herring NOAA/steel head/salmon	Ongoing					
NOAA/steel head/salmon	Pending Funding					

NOAA/steel head/salmon DFG herring	Dredging Completed					
NOAA/steel head/salmon		Yes	February 27, 2005, June 2, 2005, August 6, 2005 October 10, 2005	Yes	work dates and event time., see folder * Very minimal exceedance of authorized overdredge depth by avg. Of 0.5ft during event 2 (July-Aug) * PD Survey sheets never seem to include dredge boundary; Pre-D sheets do however * No exceedances of authorized overdredge depth * Authorized to remove from 800 cy from marina (500 cuy) and entrance cut (300 cy); actually removed 521 cy * PD Survey very poor quality - not enough soundings and didn't summarize quatity removed from which areas of project	
NOAA Steelhead and Chinook Salmon/DFG Herring/US FWS Delta Smelt	Dredging Completed	Yes	4/28/2005	Yes		

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	PROJECT	CITY/LOCALITY	BCDC Permit#	YEAR OF EPISODE	000 CYS per EPISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)
3	Townhouses	Alameda		2004	13	RBC		8 years
18	Emeryville City Marina	Emeryville		2004	88			5-7 years
20	Marina	Vallejo		2004				
26	Marin Yacht Club Harbor	San Rafael	M92-45	2004	12	RBC		4-5 years
37	Oyster Cove Marina	South San Francisco		2004	100			20 years
43	Oakland (Berth 22)	Port of Oakland		2004	80	RBC		new work
45	Redwood City Berths	Redwood City		2004				
57	San Francisco Dry Dock/BAE Systems	San Francisco	M93-13	2004				
68	South Beach Yacht Harbor	SF Redevelopment		2004	16	RBC (Port)		10 yrs (?)
43	Valero, Benicia	Benicia	M81-79	2004	80 +1 KD	RBC		Quarterly (4 X per year)

CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
WD	C	SF-11	1	March 15, 2003	15-Jun-03	8/1 to 11/30	DFG/herring NOAA/steel head/salmon	completed; dredging 2nd 1/2
SRC	C	SF-11	3.3	Unknown	completed	8/1 TO 11/30	DFG/herring	Dredging Completed early 2004
SR	C	SF-10	3.5			3/1 to 11/30	DFG/herring	Waiting on State Lands Lease - June?
		SF-11				3/1 to 11/30	DFG/herring NOAA/steel head/salmon	partially done 2003 PCB issues 2004 (?)
	C	MH, Berth 10		April 29, 2004	26-May-04	6/1 to 11/30	NOAA/steel head/salmon	Consultation complete
		SF-11						
D	C	SF-11	10	March 1, 2004		6/1 to 11/30	DFG/herring NOAA/steel head/salmon	Completed under Port of SF Master Permit; consultation underway
D	C	SF-9		Apr, Jun, Aug, Oct (KD), Dec		8/1 to 11/30	NOAA/steel head/salmon	

HAVE POST DREDGE SURVEY?	POST DREDGE SURVEY DATE	POST DREDGE SURVEY REVIEWED BY	COMMENTS ON POST DREDGE SURVEY	IF NO POST DREDGE SURVEY, HAS A CARD BEEN SENT?				
Yes	11-May-04	Yes	Significant exceedance of overdredge allowance by approx. 1 ft. in Berth 3 East * Not certain of quantity of material removed for this episode					
Yes	November 8, 2004 (Event 4)	Yes	* No exceedance of authorized overdredge depth					

PROJECT	CITY/LOCALITY	BCD C Permit #	YEAR OF EPIISODE	000 CYS per EPIISODE	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE
			YEAR	RANGE						
Alameda County flood control	various around county									
Ballena Isle Marina	Alameda			60			8 years			
Bay Bridge access channel	East side of Bay Bridge			157			once	M		
Bay Bridge Cofferdam Excavation	New east side Bay Bridge west bound lanes		2003	120	RBC		once	M	C	SF-11
Bay Bridge Glory Hole Dredging	New east side Bay Bridge west bound lanes		2003	48 to 60	RBC		once	M	C	SF-11
Baylink Ferry Terminal										
Benicia Marina	Benicia		2003		RBC	2005	Annual			SF-9
Benicia-Martinez Bridge Retro/New										
Cargill - Napa River	Napa		2003	75						
Castrol Richmond Terminal	Richmond									
ConocoPhillips, Richmond	Richmond									
Corona Del Mar Association	Alameda		2003	0.5			7 years	WD	C	SF-11
Emery Cove Marina	Emeryville						5 years			
Lagoon	Foster City									
Greenbrae Marina	Larkspur			60	RBC(?)		8 years		C	SF-10 or SF-11
Homeowners										
IMTT Richmond Terminal	Richmond									
Loch Lomond Marina	San Rafael		2003	15			4-5 years	WD	C	SF-10 or SF-11
Harbor	San Rafael		2003		RBC					
Mare Island Berth 22/23 (Weston)	Mare Island		2003	50			once	M	C	SF-9
Marina										
Marina Plaza Harbor	Sausalito	June 25, 1900	February 3, 1900				7 years	SR		SF-11
Marina Vista Canal	San Rafael		2003	3.5	RBC		2 years	WD	C	SF-10 or SF-11

	Martinez		2003	20						
Martinez Marina										
Costa Power Plant										
Napa River Channel	Napa		2003							
National Gypsum Terminal										
Oyster Point Marina	South San Francisco									
Ramp	Pittsburg									
Pittsburg Boat Stormdrain	Pittsburg									
Marina	Redwood City									
Richardson Bay Marina formerly Kappas Marina	Sausalito									
Richmond City Marina	Richmond									
Richmond Marina Bay	Richmond									
San Leandro Bay	San Leandro									
San Leandro Small boat lagoon	San Leandro									
San Rafael Channel (Corps)	San Rafael			70.3			5 years	Corps		
San Rafael Yacht Harbor	San Rafael									
Sausalito Yacht Harbor	Sausalito									
Schnitzer Steel, Oakland	Oakland									
Schoonmaker Point Marina	Sausalito		2003	20	RBC		10 years	WD	C	SF-11
Sea Scouts	Larkspur		2003	0.6	RBC		5 years	WD	C	SF-10
Shore Terminals, Martinez	Martinez		2003	4				M	C/H	SF-9
Sunnyvale, City of	Sunnyvale		2003	6						
Tesoro-Hastings Slough										
Tosco Richmond	Richmond									
Vallejo Ferry Terminal	Vallejo									
Vallejo Marina North	Vallejo		2003	35			5 years	WD	C	SF-9
South	Vallejo		2003	Unknown			5 years		C	SF-9
Island	Ryer Island						5 years			

DMM O	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECI ES	COMMENT S	HAVE POST DREDGE SURVEY?	POST DREDGE SURVEY DATE
	EST.	EST.					
			3/1 to 11/1	DFG/herring NOAA/steelhead/s almon			
			6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Done 2002, maintenance maybe necessary		
6	December 1, 2003	1-Mar-04	6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Schedule depends on east bound lanes const.		
12	June 1, 2003	1-Aug-03	6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Schedule depends on east bound lanes const.		
	October 22, 2003	29-Nov-03	? to 11/30	NOAA/steelhead/s almon/delta smelt	Need to consult for Delta smelt		
						Yes	Dec-03
			8/1 to 11/30	USFWS/Spratt NOAA/steelhead/s almon			
			6/1 to 11/30	DFG/herring NOAA/steelhead/s almon			
N/A	March 1, 2003	1-Apr-03	6/1 to 11/30		Work Completed 2002		
			6/1 to 11/30	DFG/herring NOAA/steelhead/s almon	Done 2002		
2.5	June	Unknown	6/1 to 10/31	DFG/herring, NOAA/steelhead/s almon			
3	Unknown	Unknown	1/1 to 12/31	NOAA/steelhead/s almon	Work Completed		
				NOAA/steelhead/s almon			
			6/1 to 11/30	DFG/herring, NOAA/steelhead/s almon/coho			
2.5	Unknown	Unknown	6/1 to 12/31	NOAA/steelhead/s almon			

	December 12, 2003	29-Dec-03					
						Yes	31-Dec-03
			8/1 to 11/30	USFWS/Sprattan NOAA/steelhead/salmon			
			3/1 to 11/30	DFG/herring, NOAA/steelhead/salmon			
			6/1 to 11/30	NOAA/steelhead/salmon	Completed for 2003		
3	June 1, 2003	1-Aug-03	6/1 to 11/30	DFG/herring NOAA/steelhead/salmon/coho			
	Unknown	Unknown	6/1 to 10/31	NOAA/salmon			
10					net exclusion requested		
3.75	August 1, 2003		8/1 to 10/14	NOAA/steelhead/salmon	insufficient time to complete		
			8/1 to 10/14	NOAA/steelhead/salmon			
			6/1/ to 11/30	NOAA/steelhead/salmon			

2009 Dredging Projects

8/20/09

PROJECT NAME	CITY/ LOCALE	EPIISODE 2009 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUEN CY (if known)	CONTRAC- TOR (if known)	EQUIP- MENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SP ECIES	COMMENTS
Alameda Ferry Terminal	Alameda	22		1990			C	SF-8	SAR approved			8/1 - 11/30	DFG/herring NOAA/steelhea d/salmon FWS & DFG/least tern	Currently considering a hopper dredge. Hard sand, not suitable for Alcatraz
Alameda Point Channel	Alameda	20	RBC	2008	3-Feb		C/Beam	In situ				8/1 to 11/30	DFG/herring NOAA/steelhea d/salmon FWS & DFG/least tern	Knockdown - potential for 2010
Alviso Launch Ramp	Santa Clara	1.1	RBC	New			C	Upland	SAR approved	October		9/15 to 11/30	NOAA/steelhea d FWS & DFG/clapper rail/least tern	DOP approved
Alviso Marina Boat Ramp (Santa Clara Parks Dept)	Alviso	5-6	RBC	new			C	Upland	SAR approved			9/15 to 11/30	NOAA/steelhea d FWS & DFG/clapper rail/least tern	Complete
Ballena Isle Marina	Alameda	43		2002	7			SF-11	SAP Approved			8/1 - 11/30	DFG/herring NOAA/steelhea d/salmon FWS & DFG/least tern	Potential for 2010
Berkeley Marina	Berkeley	8-9	RBC				C	SF-11	SAR approved			8/1 to 11/30	NOAA/steelhea d/salmon FWS/tern/herrin g	DOP in
Belvedere Land Company	Belevedere							SF-11	Tier One Approved			6/1 to 10/31	NOAA/steelhea d/salmon/coho DFG/herring	Eelgrass issues- potential for 2010
Benicia Marina	Benicia	0.5	C	2008	2-3 years	PHIL JOY	Knockdow n	none	Tier One Approve, for knockdown SAR in review	late October/ November		Need to consult for smelt year round	NOAA/steelhea d/salmon FWS/delta smelt (less than 10 ft depth)	Knockdown underway, Will likely dredging until November 30th only

2009 Dredging Projects

8/20/09

BP Richmond Terminal	Richmond	15	C (see note)		3-4 years			SF-11, potentially berth 10 - PoO/ HWRP/ SFDODS	SAR approved			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	IAA is pending. Needs BCDC permit amendment and wq cert. 2010
Brickyard Cove HOA	Richmond	5	RBC	1980's	15 years		C	SF-11	Testing Complete			6/1-11/30	NOAA/steelhead/salmon DFG/herring	DOP Reviewed
California Maritime Academy	Carquinez Strait	37		1988			C	SF-9	Testing Complete			8/1-11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Eelgrass, contaminant issues - likely 2010
Chevron Long Wharf	Richmond	100	RBC		Annual	D	C	Out of Bay	SAP Approved			6/1-11/30	NOAA/steelhead/salmon DFG/herring	Underway
Clipper Yacht Harbor, Basin One	Sausalito	14		2007			C	SF-11				6/1 to 10/31	NOAA/steelhead/salmo/coho DFG/herring	Likely 2010
ConocoPhillips	Rodeo	45	RBC	2008	Annual	D	C	SF-8, SF-9 Hamilton	Testing Complete	20-Oct	22-Oct	6/1 to 11/30	NOAA/steelhead/salmon	Underway
Exploratorium (PoSF Berths 17/19)	San Francisco	85		1980's			C	SF-11, Hamilton	SAP Approved	October		6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Glen Cove Marina	Vallejo	99	R	2003	8-10 years		C	SF-9	SAR approved	October		8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Needs BCDC and Crops Permit and DOP approval
Greenbrae Marina	Larkspur	18		2006	3-4 years		C	SF-11	SAP Approved			6/1 to 10/31	NOAA/steelhead/salmo/coho DFG/herring	Likely 2010
Hanson Aggregates (at Tidewater Ave)	Alameda	13					C	upland	SAP Appr.			8/1 - 11/30	DFG/herring NOAA/steelhead/salmon FWS least tern	Needs property documents from Corps.
Levin-Richmond	Richmond	5		2006	3-4 years		C	Upland	SAR Approved NUAD			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Mercury- Due to disposal issues and navigational hazards, may need to work outside of window
Lowrie Yacht Harbor	San Rafael						C	SF-10						Potentially 2010
Mare Island Dry Dock (ADR)	Napa River	104		1994			C	SF-9	SAR Under review			8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	Likley 2010

2009 Dredging Projects

8/20/09

Oakland Inner and Outer Harbors (Corps)	Oakland	400					C	Hamilton		July		8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Complete
Oyster Cove Marina	South San Francisco	38	RBC	2006			C	SF-11		September		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway
Oyster Point Marina East Basin	South San Francisco	35	RBC	2007			C	SF-11	SAR Approved	September		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway
Paradise Cay Homeowners Association	Marin	44	RC	2007			C	SF-11	SAP Approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	DOP approved
Paradise Cay Yacht Club	Marin	61	C	2008			C	SF-11	SAP Approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Not until 2010
Pelican Harbor	Sausalito	35					C	SF-11	SAR approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Likley not until 2010
Petaluma Marina	Petaluma	38.5	C	2007	5		H	Schoellenberger	SAP Appr.; testing results to go to June DMMO mtg	asap		6/1 to 10/31	NOAA/steelhead	Schoellenberger needs to be cleaned out prior to placement - likely not until 2010
Pinole Shoal Channel (Corps) Advanced Maintenance (Stimulus)	Pinole	175		New			C	SF-8	Testing Complete	September		6/1 to 11/30	NOAA/steelhead/salmon	CD amendment requested, but not responded to
Pinole Shoal Channel (Corps)	Pinole	175	RB	2008			H/C	Hamilton/SF-10/SF-9	Tier One Approved			6/1 to 11/30	NOAA/steelhead/salmon	Complete
Port of Oakland Berths 22, 23, 24-26, 30, 32, 33, 35-37, 55-56, 57-59	Oakland		RBC	2008	Annual	D	C	SF-11	Testing Complete	August		8/1 - 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Episode One underway
Port of Redwood City Berths	Redwood City	18-20		2004	4-5 years			SF-11	SAP Appr.; testing and re-testing done; ok for in-Bay?			6/1 to 11/30	NOAA/Steelhead	Likely 2010

2009 Dredging Projects

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Port of San Francisco, Berth 27	San Francisco	39	C	2008	Annual	D	C	SFDODS	SAR Under review			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	
Port of San Francisco, Central Basin	San Francisco	253	RBC				C	Hamilton/SF-DODS	SAP Approved pending revisions			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Port Sonoma	Petaluma	50	RBC	2008	Annual		H	Upland/Carneros River Ranch		December / January				Consultation in Place
Redwood City Harbor Channel (Corps) Stimulus Funds	Redwood City	500	RBC	2008				Bair Island Reuse/Upland		October		6/1 to 11/30	NOAA/Steelhead	
Redwood Shores	Redwood City	67	RBC				C/H	Bair Island Reuse/Upland	Testing Complete			none	Not in Bay	Site prep underway
San Francisco Main Ship Channel (Corps)	Golden Gate	500	RB	2008	Annual	Essayons	Hopper	SF-8, Ocean Beach	Tier One Approved	1-Jun		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Complete
Richmond Outer Harbor (Corps)	Richmond	150	RB	2008	Annual	Essayons	Hopper	SF-11	Testing Complete			6/1-11/30	DFG/herring NOAA/steelhead/salmon	Complete
Richmond Inner Harbor (Corps)	Richmond	250	RB	2008	Annual	Vortex	C	Hamilton	Testing Complete	15-May		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Underway
River Park Marina	Napa	17	R			WD	E	Winter Island	Testing Complete					
San Francisco Marina, City of SF	San Francisco	26	RB	2005		Jerico	C/H	upland	Testing Complete	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Entrance Channel Complete
San Francisco Yacht Club	Belevedere	20	RBC				C	SF-11	Testing Complete			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Complete
J. Maltester Channel/ San Leandro Channel (Corps)	San Leandro	86	RB	2001			H	Upland	Testing Complete			6/1 to 11/30	NOAA/steelhead	Likely 2010??

2009 Dredging Projects

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San Rafael Rock Quarry	San Rafael	16					C					6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	
San Rafael Yacht Club	San Rafael	18	RBC	2008			C	SF-10/WI				6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Mercury, ongoing
San Rafael Homeowners	San Rafael	0.44		2005			C	SF-10				6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Sausalito Harbor	Sausalito						C	SF-11	SAP Appr.			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Likely 2010
Strawberry Channel	Mill Valley	2			new		C	New Work?						Likely 2010
Suisun Bay Channel/New York Slough (Corps)	Suisun	175	RB	2008	Annual		C	SF-16	Tier One	September		8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Requested Amendment to CD and Water Quality Cert, no response to info request
Tidewater Aquatic Center	Oakland	3.5-4	RBC	new		WD	C	Upland	Testing Complete			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway
Valero	Benicia	80	RBC	2007	Quarterly		C	Hamilton SF-DoDs, Winter Island	Sap Appr. For 2009; plan to test fall '08	Ongoing		8/1 to 11/30	FWS/delta smelt NOAA/steelhead/salmon	Consultation allows for year round work.
Vallejo Yacht Club	Vallejo	25	C	2008			C	SF-9	SAP Approved			8/1 to 11/30	FWS/delta smelt NOAA/steelhead/salmon	Underway

PROJECT NAME	CITY/ LOCALE	EPISODE 2010 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENC Y (if known)	CONTRAC- TOR (if known)	EQUIP- MENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/SPECI ES	COMMENTS
Aeolian Yacht Club	Alameda	1.8k	BC	2007		Western Dock	E	WI/Auggie's Island	SAR approved	October	November	8/1 - 11/30	DFG/herring NOAA/steelhead/sa lmon FWS & DFG/least tern	Some Hg issues heading to Winter Island
Alameda Ferry Terminal	Alameda	6	RBC	2009			C	Winter Island	SAR approved		November	8/1 - 11/30	DFG/herring NOAA/steelhead/sa lmon FWS & DFG/least tern	Corps needs to issue modification to the permit, need contractor
Amports/Benicia Port Terminal	Benicia	90	C	2007	3 years		C	Hamilton/SF- 9	Tier One approved	November		Aug 1- Nov 30	NOAA/steelhead/sa lmon FWS/delta smelt	IAA approved
Antioch Marina	Antioch		RC			Western Dock	C	In coffer dam?				Aug 1- Nov 30	NOAA/steelhead/sa lmon FWS/delta smelt	Anticipating extension request
BAE (San Francisco Dry Dock)	South San Francisco	44	RBC	2008	2 years	D	C	SFDODS	SAR approved	October	November	June 1- November 30	DFG/herring NOAA/steelhead/sa lmon	Episode approved
Benicia Marina	Benicia	36	C	2008	2-3 years	Salt River	C	none	SAR	July	November	Aug 1- Nov 30	NOAA/steelhead/sa lmon FWS/delta smelt (less than 10 ft depth)	working weekends only
Brickyard Cove HOA	Richmond	2	RBC	1980's	15 years		C	SF-11	Testing Complete			6/1-11/30	NOAA/steelhead/sa lmon DFG/herring	complete
California Maritime Academy	Carquinez Strait	37	RBC	1988		Salt River/Weser n Dock	C	SF-9/Berth 10	Testing Complete	late October		8/1-11/30	NOAA/steelhead/sa lmon FWS/delta smelt (depth > 10 ft)	DOP and episoda approval in place. NUAD material being dredged first, may need to dredge a channel to get to it through SUAD material -work with agencies to develop sequencing
Chevron Long Wharf	Richmond	100	RBC		Annual	D	C	SF-11	SAR Approved			6/1-11/30	NOAA/steelhead/sa lmon DFG/herring	Underway. Needs to take 22% to Hamilton, request an extension to do so late in the season
Chevron Rod & Gun Club (Castro Cove)	Richmond	150	R				H	Castro Cove (onsite)	SAR approved			7/1-11/30	NOAA/steelhead/sa lmon	Delayed to 2011
Coyote Point Marina	San Mateo	50	RBC					SF-11	SAR Approved			6/1-11/30	NOAA/steelhead	Underway, will push window
ConocoPhillips	Rodeo	13	RBC	2009	Annual	M	C	SF-8, SF-,9 Hamilton	Testing Complete	20-Oct	22-Oct	6/1 to 11/30	NOAA/steelhead/sa lmon	IAA Approved
Emeryville Marina	Emeryville	0.3	B	2008		Salt River	C	SF-11	Requesting Tier One			8/1-11/30	NOAA/steelhead/sa lmon DFG/herring/least tern FWS	Two high spots candidate for a knockdown
Exploratorium (PoSF Berths 17/19)	San Francisco	65	RBC	1980's		D	C	SF-11	SAR Approved	October	November	6/1 to 11/30	NOAA/steelhead/sa lmon DFG/herring	Underway

Glen Cove Marina	Vallejo	70	RBC	2003	8-10 years	Western Dock	C	SF-9	SAR approved		November	8/1 to 11/30	NOAA/steelhead/salmon FWS/delta smelt (depth > 10 ft)	Underway
Greenbrae Marina	Larkspur	18	RB	2006	3-4 years	Salt River	C	SF-11/upland	SAP Approved	August	November	6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring/Clapper Rail/Salt Marsh Harvest Mouse.	Dredging. Must stay outside of 250 feet from marsh until September. Mercury issues Requesting extension until November 30th.
Hanson Aggregates (at Tidewater Ave)	Alameda	1.5	RBC	1980		Salt River	C	WI	SAP Appr.			8/1 - 11/30	NOAA/steelhead/salmon FWS least tern	DOP in on 10/14
Levin Richmond	Richmond	6.5	RBC				C	Berth 10	SAR approved			6/1-11/30	DFG/herring NOAA/steelhead/salmon	Complete?
Larkspur Ferry Terminal	San Rafael	500	RB	2005	4 years	Dutra/Western Dock	C	Hamilton, SFDODs, SF-10	SAR approved	August	November 10th	6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Underway, shallow area complete
Lowrie Yacht Harbor	San Rafael	20					C	SF-10	SAR Approved					Needs permits, likely 2011
Montezuma Harbor	Suisun	2	BC	2004			C	Upland				8/1-11/30	Delta Smelt FWS/Salmonids NOAA	Applications in, no request to DMMO
Mare Island Dry Dock (ADR)	Napa River	104	RBC	1994			C	SF-9	SAR Approved			8/1 to 11/30 (subject to change per individ. Consultant)	Delta Smelt smelt/steelhead/salmon	But they are still trying to dredge in 2010. No DOP yet
Marina Bay Yacht Harbor Richmond Bay LLC	Richmond	74					C	SF-11/SF-DODS	SAR Approved			6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Permits pending; dredge 2011 Eelgrass present, contaminant issues
Marina Vista	San Rafael	12		2005		Salt River	C	SF-10/SF-11/WI	SAP approved					Hg hit, evaluating individual cores
Main Ship Channel (ACE)	San Francisco	500	RB	2009	Annual		C	SF-8	SAR Approved					Complete
Napa Yacht Club HOA	Napa	97	RB	1998		Western Dock	C	SF-9/Upland	SAR Approved			8/1-10/15		Planning to dredged 2010. NOAA EFH underway
Oakland Inner and Outer Harbors (Corps)	Oakland	700	RB	2009		M	C	Hamilton	SAP approved	October	February	8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Late start, contracting issues, will require consultation to complete.
Oyster Point Marina	South San Francisco	51	RBC	2009			C	SF-11	SAR Approved	June		6/1 -11/30	DFG/herring NOAA/steelhead/salmon	East Basin, complete
Paradise Cay Homeowners Association	Marin	44	RC	2007		Salt River	C	SF-11	SAR Approved			6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Coomplete
Pelican Harbor	Sausalito	22	RBC			Western Dock	C	SF-11	SAR approved	October	November	6/1 to 10/31	NOAA/steelhead/salmon/coho DFG/herring	Underway
Pinole Shoal Channel (Corps)	Pinole	175	RB	2009			Essayons	SF-10/SF-9	SAR approved			6/1 to 11/30	NOAA/steelhead/salmon	Complete

Port of Oakland Berths 25, 26, 30, 32 33, 35, 37, 57, 58, 59, 60, 61, 62, and 63	Oakland	76	RBC	2008	Annual	D	C	SF-11	SAR and Tier One Approved	August	30-Nov	8/1 - 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	Underway: 40% to Alcatraz complete, 60% to Hamilton delayed until offloader is available. Request consultation.
Port of Redwood City Berths	Redwood City	18-20		2004	4-5 years	M	C	SF-11/SFDODs	SAR approved	October		6/1 to 11/30	NOAA/Steelhead	Likely 2010.
Port of San Francisco, Berth 35	San Francisco	52	RBC	2009	Annual	D	C	SFDODS	SAR Approved	August		6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Complete
Port of San Francisco, Berth 27	San Francisco	40	RBC	2008	2 years	D	C	SF-11	SAR Approved	October		6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	DOP approved, Start work after Exploritorium
Port Sonoma	Petaluma	80	RBC	2008	Annual	Cal Dredging	H	Upland/Carneros River Ranch		December / January			NOAA/steelhead/salmon	Consultation in Place, need longfin take permit
Mallard Island	Contra Costa	33		1987	30 years		C	SF-9						2012
Richmond Outer Harbor (Corps)	Richmond	200	RB	2009	Annual	D	C	SF-11/Hamilton	SAR approved	November		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Late contract, need consultation
Richmond Inner Harbor (Corps)	Richmond	250	RB	2008	Annual	D	C	Hamilton	SAR approved	November		6/1-11/30	DFG/herring NOAA/steelhead/salmon	Late contract, need consultation
River Park Marina	Napa	17	RC	2009		WD	E	Auggie's Island	SAR approved	October	November 15th	6/1-10/15	NOAA/steelhead/salmon	Completing from 2009, requesting extension from DFG to 10/30
San Francisco Marina, City of SF	San Francisco	13	RB	2005			C/H	upland	SAR approved	1-Jun		6/1 to 11/30	DFG/herring NOAA/steelhead/salmon	Complete
San Rafael Rock Quarry	San Rafael	16					C		SAR approved			6/1 to 11/30	NOAA/steelhead/salmon DFG/herring	Dredging in 2011?
Schnitzer	Oakland	7		2007			C	SF-11	SAR approved			8/1 to 11/30	DFG/herring NOAA/steelhead/salmon FWS & DFG/least tern	
USCG Yerba Buena Island	San Francisco						C	SF-11	SAP revised				6/1 - 11/30	Permits pending; 2011, eelgrass issues
Valero	Benicia	80	RBC	2007	Quarterly		C	Hamilton SF-DoDs, Winter Island	SAR approved	Ongoing		8/1 to 11/30	FWS/delta smelt NOAA/steelhead/salmon	Consultation allows for year round work. JBE. Dredging in Sept 2010.

PROJECT NAME	CITY/ LOCALE	EPISODE 2011 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
ADR	Vallejo	0.5	RBC	2010	Annual	Western Dock	C	Knockdown	Tier One	8/10	8/12	8/1 - 10/15	DFG/FWS/NOAA/ longfin/salmon/steelhead/ least tern	complete, will be amending permits for additional knockdowns
Alameda Point Channel (City of Alameda)	Alameda	196	RBC	2007	3-4 yrs	D	C	SF-11 & SFDODS	SAR approved	10/15	11/15	8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	10 day extension granted
BAE	San Francisco	181.4	RBC	2010	2-3 years	D	C	SF-11/SFDODS	SAR approved	8/10		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
Benicia	Benicia	22	RBC	2009	2 yrs	Salt River	C	SF-9	Tier 1	9/1		8/1 - 11/30	DFG/FWS/NOAA/ Delta smelt/salmon/steelhead/ least tern	Complete
Chevron Long Wharf	Richmond	150	RBC	2010	Annual	D	C	SF-11	SAR approved	9/1		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
Chevron Rod & Gun Club (Castro Cove)	Richmond	46	RBC	1980	30 yrs	Dixon	C	Castro Cove (onsite)	SAR approved	8/1		7/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete
ConocoPhillips	Rodeo	45	RBC	2010	Annual	M	C	SF-8, SF-9 Hamilton	SAR approved	9/1		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	complete
Emeryville Marina	Emeryville	0.3	BC	2008		Salt River	C	SF-11	Tier 1 approved			8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Two high spots candidate for a knockdown, No episode requested
Levin Terminal	Richmond	1	RBC	2010	Annual		C	Upland	Tier 1 approved	11/15	11/30	6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete
Main Ship Channel (Corps)	San Francisco	500	RB	2010	Annual	Essayons	H	SF-8 SF-17	Tier One Approved	May			None	complete
Marin Yacht Club	San Rafael	12	RBC	2007	6 yrs	Salt River	C	SF-10	SAR approved	10/1		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	7 day extension granted
Marina Bay Yacht Harbor Richmond Bay LLC	Richmond	74	RBC	1980's		Salt River	C	SF-11/SF-DODS	SAR approved	8/27		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	complete
Marina Vista Canal	San Rafael	12	RBC	2005	6 yrs	Salt River	C	SF-10/SF-11/WI	SAR approved	7/1		6/1 - 11/30	DFG/NOAA/ salmon/steelhead/longfin	complete

PROJECT NAME	CITY/ LOCALE	EPISODE 2011 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Napa Yacht Club HOA	Napa	76	RBC	1998	20 yrs	Western Dock	C	SF-9	SAR approved	8/1		8/1 - 10/15	DFG/NOAA/longfin/delta smelt/salmon/steelhead	suspended for the season
Oakland Inner and Outer Harbors (Corps)	Oakland	1,200	RB	2010	Annual	M	C	Montezuma. SF- 11	SAR approved	8/1	February	8/1 - 11/30	DFG/NOAA/FWS/herring/lo ngfin/salmon/steelhead/lea st tern	Underway Extension through February 29, 2012
Port of Oakland Berths	Oakland	133.7	RBC	2010	Annual	D	C	SF-11	SAR approved	8/1		8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Complete
Pinole Shoal Channel (Corps)	Pinole	74	RB	2010	Annual	Essayons		SF-10	Tier One Approved	7/25		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete
Point San Pablo Yacht Harbor	Point Pinole	20	RBC	2006	5 years	Dixon	C	Castro Cove	SAR Approved	9/1		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Complete, but dredged less than anticipated due to debris in sediment
Port of SF, Berth 27	San Francisco	109	RB	2010	Annual	D	C	SF-11/DODS	SAR approved	8/20		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	complete
Port of SF, Berth 35	San Francisco	72	RBC	2010	Annual	D	C	SFDODS	SAP approved	10/15		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	15 day extension granted
Port Sonoma	Petaluma	50	C	2009	Annual	Cal Dredging	H	Carneros River Ranch	SAR approved	10/31		6/1 - 1/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Delayed project until December. Seeking a DFG ITP for longfin, ITP application complete.
Redwood City Harbor Channel Maintenance Dredging (Corps)	Redwood City	362	RBC	2010	2 yrs	Vortex	C	SF-11	SAR approved	9/1	11/30	6/1 - 11/30	USFWS/Clapper Rail	31 Day extension granted
Richmond Inner Harbor (Corps)	Richmond	250	RB	2010	Annual	Re Staite	C	SF-DODS	Tier 1	7/15	10/31	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Underway - Requesting an extension untile December
Richmond Outer Harbor (Corps)	Richmond	204	RB	2010	Annual	Essayons	H	SF-11	Tier 1; additional boundary maps?	7/25		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete

PROJECT NAME	CITY/ LOCALE	EPISODE 2011 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
San Rafael Canal (Corps)	San Rafael	40	RB	2003	7-10 years		C	S-10	SAR approved	10/15		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	15 day extension granted
San Rafael Yacht Harbor	San Rafael	1.8	RBC		Annual	Self	C	SF-10	Continuation of episode	6/1		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	complete
Sausalito Yacht Harbor	Sausalito	93	RBC			Salt River	C	SF-11/ Upland	SAR approved	8/29		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	NOAA Fisheries ok; No wavier from DFG, stop work on November 30th
Suisun Bay Channel/ New York Slough (Corps)	Suisun	169	RB	2008	Annual	Essayons	H	SF-16	Tier One Approved	8/1		8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	complete - 11/20/11 Knockdown Request - 1000 cy, knockdown complete
Sunnyvale Boat Launch Ramp	Sunnyvale	0.06	BC	2010	Annual		Ex	Upland	NA	July		6/1 - 11/30	DFG/NOAA/ longfin/salmon/steelhead	complete
Valero	Carquinez	80 Annual	RBC	2/11	Annual	D	C	SF-9/SF-11/ WI/SFDODS	SAR approved				DFG/NOAA/herring/ longfin/salmon/steelhead	4 events so far this year
Vallejo Ferry	Vallejo	10	RBC	2008	3 years	D	C	SF-9	SAR Approved	August		8/1 - 10/15	DFG/NOAA/longfin/ salmon/steelhead	Complete

PROJECT NAME	CITY/ LOCALE	EPISODE 2012 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
America's Cup Pier 9S, 14, Brannan St. OWB (2012 - S of 30/32)	San Francisco	33.5	RBC	0	2 episodes 1- 2012, 1- 2013	D	C	MWRP	SAR approved	November	November	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Piers 32-36 only. Per Oriana - DOP being developed, debris issues being sorted for Pier 36 as it is causing problems at MWRP
Alameda Ferry - WETA	Alameda	5	RBC	2012		D	C	WI	SAR Approved	end of October	November	8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	ACE ok'd in house DOP; sediment going to the quarry
Amports - DONE	Benicia	29	RBC	2010		D	C	WI	Tier One approved	2/27	3/1	8/1 - 11/30	DFG/FWS/NOAA/Delta smelt/ longfin/salmon/steelhead	Informal consultation completed; 2012 dredging complete
Benicia Marina	Benicia	15	RBC	2011	Annual		C	SF-9	SAR approved	8/29		8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	ACE ok'd in house DOP
Brickyard Cove Marina	Richmond								Tier One Approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	2013
Chevron Long Wharf	Richmond	150	BC	2011	Annual	D	C	SFDODS MWRP	SAR approved	end of October		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	DMMO 8/22 - SAR Approved, redo PAH (tissue); DOP changed for outflow; deepening project for 2013
Clipper Yacht Harbor, Basin One	Sausalito		RBC	2007	3-4 yrs		C	SF-11				6/1 - 10/31	DFG/NOAA/herring/ longfin/salmon/steelhead/ coho	ACE permit expired, BCDC permit; Contaminant issues; PN to be issued soon
Phillips 66 (aka Conoco Phillips)	Rodeo	17	RBC	2011	Annual	D	C	SF-8, SF-9, upland (Aramburu)	Tier 1 approved	11/1	11/2	6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Has good sand, may take some to Aramburu Preserve in Richardson Bay
Cove Investment	Richmond	4	Application submitted						SAP submitted			6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	conditional approval, confirmatory chemisty, 2013
Emeryville Marina Entrance Channel	Emeryville	44		2008			C	SF-11	SAR approved			8/1-11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Entrance Channel, NOAA current monitoring instruments placed nearby; may need ACE permit; silt curtain to be used, eelgrass survey received; new BCDC 10 yr permit on Oct 18, has WQC, pre-dredge survey complete, DOP in the works
Levin Richmond	Richmond	6	RB	2011				Upland, landfill only	SAR approved	November		6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Advanced maintenance dredging; 45' deep trench along warf face; superfund activity nearby
Lowrie Yacht Harbor	San Rafael Canal	26.8	RBC	2004	6 yrs	SRC	E	SF-10	SAR approved/Tier1 approved	8/7		6/1 - 11/30	DFG/NOAA/longfin/herring / salmon/steelhead	DOP in 4/30/12, Episode Approved 5/18/12, Underway, work suspended 10/1; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
Main Ship Channel (Corps)	San Francisco	500	RB	2011	Annual	Essayons	H	SF-8 SF-17					None	Delayed due to ship repair, begin end of June?
Martinez Marina	Martinez	25	C	2008			H	upland	SAR approved	September		30-Nov	DFG/FWS/NMFS/Delta smelt/salmon/steelhead	Has this project been appended to the Corps' programmatic re: Delta smelt; east of Carquinez, referred to Jim Starr, Crystal Spurr F&G, FWS Bay Delta Office; Seeking incidental take permit, funding limiting volume: SMHM issues. may get an extension
Napa Valley Marina	Napa	92	application received	2009?			suction	upland/benefi cial reuse		November	2012-2013	Nov 1- Dec 31	steelhead/salmon/green sturgeon/delta and longfin smelt	Late submittal; disposal ponds on-site, own dredge equipment; 1600 permit being processed; check BO
Oakland Inner and Outer Harbors (Corps)	Oakland	800	RB	2011	Annual	M	C	SFDODS / beneficial reuse	Tier One for Ocean Approved	1-Oct		8/1 - 11/30	DFG/FWS/NOAA/herring / longfin/salmon/steelhead / least tern	Bids are in; SFDODS is ACE preferred spot, EPA doesn'twant SFDODS, prefers MWRP and contacting NOAA and F&G; will need extension
Paradise Cay Yacht Club	Tiburon	20	BC	2009		SRC	E	SF-11	Tier One approved			6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Underway, work suspended Sept and restarted in Nov
Pier 39 DONE	San Francisco	100/63	BC	2008	4 years	SRC	C	SF- 11/SFDODS/ Berth 10	SAR approved	6/25		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Work completed; waiting for post-dredge survey

PROJECT NAME	CITY/ LOCALE	EPISODE 2012 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Pinole Shoal DONE	Pinole	120	B	2011	Annual	Essayons	H	SF-10	Tier One approved	August	August	6/1 - 11/30	DFG/NOAA/longfin/ salmon/steelhead	Completed but may not have been cleared to design depth
Pittsburg Marina - Lowy Basin elbow	Pittsburg	10	No BCDC	2006	6 years		C	WI	SAR Approved	September		8/1-11/30	NMFS/CDFG/FWS/salmon/ steelhead/delta smelt	Streambed Alteration Agreement is now required for work from Chipps Island - eastward; Sago palm weed survey (WRA), may require mitigation NMFS; DOP approved by USACE 9/18/12
Plains Terminal	Martinez	6		2000		D	C	WI	SAR Approved	8/1		8/1-11/30	DFG/FWS/NMFS/Delta smelt/salmon/steelhead	BCDC, RWQCB have authorized permits, ACE had DOP
Port of Oakland Berths 22, 23, 25-26, 30, 32, 35 37, 55-59, 60-63	Oakland	140	BC	2011	Annual	D	C	Montezuma/ WI	Tier One/ SAR Approved	8/6		8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	Episode underway, suspended twice to date, nealry done
Port of SF, Berth 35	San Francisco	119	RBC	2011	Annual	D	C	SFDODS/MW RP?	SAR approved	November		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Doing in conjunction with Pier 80; PAH; concurrent to Chevron, November
Port of SF, Piers 80 A and D	San Francisco	84	RBC	2009?		D	C	upland/ SF11	SAR approved	October	October	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
Redwood City (Corps)	Redwood City	29	RB	2011		ACE	knockdown			June				knockdown underway on June 15th, ACE emergency; F&G Region 3, needs 1600?
Richardson Bay Marina	Sausalito	14			3 years	SRC	C	SF-11	SAR approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Eelgrass beds nearby, will use silt curtain; needs SLC lease; may give sediment to Aramburu; PN out; No extension possible
Richmond Inner Harbor (Corps)	Richmond	75	RB	2010	Annual	D is subbing for Ari State	C	SFDODS	SAR, only Comp 2, approved/new SAP approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Bids in, =requesting ocean concurrence, Dutra may ask for MWRP and extension
Richmond Outer Harbor (Corps)	Richmond	250	RB	2010	Annual	Essayons	H	SF-11/SF-10	SAR approved	6/15		6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Complete
City of SF Marina West Basin	San Francisco	73	RBC	2009	2-3 years	D	C	Upland/SF- 11/Aramburu Is.	SAR approved	October	November	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	work underway
San Rafael Canal Homeowners Aqua Vista	San Rafael	2		2004		SRC	E	SF-10	Tier One approved			June 1-Nov 30	DFG/NOAA/longfin smelt/salmon/steelhead	Incomplete applications/PN notice; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
San Rafael Canal Homeowners Mooring Rd	San Rafael	7	application received	2004	4-5 yrs	SRC	E	SF-10	Tier One approved/ SAP approved	November	November	June 1-Nov 30	DFG/NOAA/longfin smelt/salmon/steelhead	Permit pending; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
San Rafael Canal Homeowners Newport Boating Association	San Rafael	7		2003		SR	C	SF-10	Tier One approved	November	November	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Work underway; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
San Rafael Canal Homeowners Porto Bello HOA	San Rafael	7		2005		SR	C	SF-10	Tier One approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Can use ACE test results to obtain Tier 1; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?

PROJECT NAME	CITY/ LOCALE	EPISODE 2012 VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
San Rafael Canal Homeowners Royal Court HOA	San Rafael	7		2005		SR	C	SF-10	Tier One approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Can use ACE test results to obtain Tier 1; Region 3 DFG will require SAA next season. Where is line for 1600 agreements?
Sausalito Yacht Harbor	Sausalito	38	RBC	2011		Salt River	C	SF-11/ Upland	SAR approved	7/1	10/19	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	Completed Oct 19
Suisun Bay Channel/ New York Slough (Corns)	Suisun	119	RB	2011	Annual	Yaquina	H	SF-16	Tier One approved	8/1		8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	Complete
Tesoro	Carquinez	5		2005	7 years	D	C	WI	SAR approved	10/15		8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	First year, ACE, got LOP; next year will apply for 10 yr permit; obtained SLC lease; BCDC Episode approval sent
USCG Yerba Buena Island	San Francisco	22		2004			C	SF-11, DODS, upland	SAR /Tier 1 approved	11/15	11/30	6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead/ eelgrass	eelgrass and ulva issues, bids recv end of August, USACE needs signed copy, DOP approved
Valero DONE	Carquinez	80			Annual (4-5 times/yr)	Dutra	C	Montezuma, SF-9					DFG/NOAA/herring/ longfin/salmon/steelhead	First 2012 event complete w/ placement at Montezuma
Vallejo Marina North and South Basins	Vallejo	79		7/4		SRC	C	SF-9	SAR approved	9/12	11/12	8/1 -10/15	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead	Underway, Oct 15th work window closes, needs extension, can only dredge weekdays, 7-19; see notes below
West PAC Energy	Pittsburg	170					C	WI/ Montezuma	SAR approved	2013	2013	8/1 - 11/30	DFG/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	Mainly sand, may take some to Antioch Dunes (Sacramento District ACE); May need extension from NOAA

vallejo marina, north and south basins. work began Oct 2nd and work window closes Oct 15th due to steelhead. Asking for an extension through Jan 2013, have 65,000 cy to dredge and can move 800 cy/day. Steelhead is a NMFS species and will need their opinion (Gary Stern). Delta smelt - Maral Kasparian has the ACE request referring to programmatic BO for delta smelt and has laready amended the project for extension to Nov 30, can extend the window to Jan 2013. Longfin smelt - Craig Weightman is ok with Jan 2013 extension for longfin but needs SAA (1600 perrrmit) asap. City of Vallejo has an SAA for the work at Baylink Ferry.

PROJECT NAME	CITY/ LOCALE	VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES/	COMMENTS
America's Cup- Piers 30/32	San Francisco	33.5	RBC	0	2 episodes 1- 2012, 1- 2013	D	C	MWRP	SAR approved	November	November	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Piers 32-36 only. Complete
Benicia Marina	Benicia	15	RBC	2011	Annual		C	SF-9	SAR approved	8/29		8/1 - 11/30	DFG/FWS/NOAA/h erring/ longfin/salmon/ste elhead/ least tern	Complete
Chevron Long Wharf	Richmond	150	BC	2012	Annual	D	C	SFDODS MWRP 80%; SF-11 20%	SAR approved	mid October	November	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Complete
Clipper Yacht Harbor, Basin Three	Sausalito	1,184 cy + 356 cy soil	RBC			SRC, West Environmenta l	C	Berth 10, upland landfill	RWQCB required and approved	11/11	11/30	6/1 - 10/31	DFG/NOAA/herring /longfin/salmon/ste elhead/ coho	Removing copper contaminated sediment and soil; have work window extension until Nov 30. * received 6 day ext for removal of additional 200 cy in Dec Complete
Phillips 66 (aka Conoco Phillips)	Rodeo (San Francisco Refinery)	8.2	RBC	2012	Annual	D	C	SF-8, SF-9, upland	Tier 1 approved	10/15	10/31	8/1 - 11/30	DFW/NOAA/FWS/I ongfin/delta smelt/ salmon/steelhead	Has good sand, may take some to Aramburu Preserve in Richardson Bay Complete
Main Ship Channel (Corps)	San Francisco	500	RB	2011	Annual	Essayons	H	SF-8 SF-17					None	Out of Bay Complete
Oakland Inner and Outer Harbors (Corps)	Oakland	700	RB	2012	Annual	D?	C	MWRP/SF- 11/SFDODS / beneficial reuse	Tier One for Ocean Approved			8/1 - 11/30	DFG/FWS/NOAA /herring/ longfin/salmon/st eelhead/ least tern	In progress? Based on Sept 9 CN Complete
Pinole Shoal	Pinole	101	B	2012	Annual	D	C	SF-10/SF-9		June	June	6/1 - 11/30	DFG/NOAA/longfin /salmon/steelhead	Based on WDR April 15, 2013 Complete
Port of Oakland Berths 24 - 26, 30, 32, 35-37, 55 - 59	Oakland	150	BC	2012	Annual	D	C	SF-DODS	Tier One for all but Berths 25-26	8/10	11/30	8/1 - 11/30	DFW/FWS/NOAA/h erring/ longfin/salmon/ste elhead	all berths approved for SFDODS, In-Bay (SF-11) and Beneficial Reuse at Cullinan and Montezuma. Berths 60-63 not approved for In-Bay due to elevated PCBs. Complete
Port of SF, Berth 35	San Francisco	79	RBC	2012	Annual	D	C	SFDODS	SAR approved, SUAD SF- DODS	10/20	11/30	6/1 - 11/30	DFW/NOAA/herrin g/ longfin/salmon/ste elhead	elevated PAH, some clean fine grain sediment Complete
Richardson Bay Marina	Sausalito	14		1990		SRC	C	SF-11	SAR Approved	August	mid-late November	6/1-10/30	NMFS/DFW/herrin g, longfin, least tern/eelgrass, salmonids	Eelgrass beds nearby, silt curtains deployed. Received work window extension to Nov 30 (Coho salmon) from NMFS/CDFW Complete
Richmond Inner Harbor (Corps)	Richmond	150	RB	2012	Annual	D	C	SFDODS		9/15	October	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Based on WDR July 29, 2013 Complete
Richmond Outer Harbor (Corps)	Richmond	156	RB	2012	Annual	D	C	SF-11/SF-10	SAR approved	June	June	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Based on WDR April 15, 2013 Complete
City of SF Marina West Basin	San Francisco	13.4	RBC	2012	2-3 years	D	C	Upland	SAR approved	November	November	6/1 - 11/30	DFG/NOAA/herring /longfin/salmon/ste elhead	Sand from sand trap taken to SR Quarry for reuse Complete
San Rafael Canal Homeowners Mooring Rd	San Rafael	7	application received	2004	4-5 yrs	SRC	E	SF-10	Tier One approved/ SAP approved	November	November	June 1-Nov 30	DFG/NOAA/longfin smelt/salmon/steel head	Permitted to dredge in 2012 - due to leakys are dredging end of season 2013 - NOT YET STARTED (11/19)
Suisun Bay Channel/ New York Slough (Corps)	Suisun	156	RB	2011	Annual	Yaquina	H	SF-16/SF-9	Tier One approved	August	September	8/1 - 11/30	DFG/FWS/NOAA/lo ngfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	Complete
US Coast Guard Station Vallejo	Vallejo	11		2008	4-5 yrs	SRC	C	SF-9		September	October	8/1-10/15	NOAA/DFW/delta smelt/steelhead	Completed within work window
Valero	Carquinez	80	RBC	2012	Annual (4-5 times/yr)	Dutra	C	Montezuma, SF-9					DFG/NOAA/herring /longfin/salmon/ste elhead	Complete

PROJECT NAME	CITY/ LOCALE	EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACTOR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Aeolian Yacht Club	Alameda	M85-63	2007	18	RB		C	SF-11				8/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/least tern	Some cord grass in basin, mercury;
Alameda Lagoons	Alameda	12,000	C (not in BCDC jurisdiction)	new			C	Upland at Naval Airstation Alameda					No EFH or ESA	
BAE Systems/SF Drydock - DD2	San Francisco	2011	112	C	2-3 years		C	SF-11/Montezuma	SAP Approved	July		3/1 to 11/30	DFG/herring	
Benicia Marina	Benicia	15	RBC	2011	Annual		C	SF-9				8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
Brickyard Cove Marina	Richmond											6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	
BP Terminal	Richmond	11.2	BC	2013	Annual		C	SF-11	SAP Approved			6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	
Chevron Long Wharf	Richmond	150	BC	2012	Annual		C	SFDODS MWRP 80%; SF-11 20%				6/1 - 11/30	DFG/NOAA/herring/ longfin/salmon/steelhead	
Corinthian Yacht Club	Tiburon	22	BC	2008	4 years		C	SF-11	SAR Approved			6/1-10/31	NOAA/Steelhead/salmon DFG/herring	
JFK Boat Ramp	Napa													
Loch Lomond Marina	San Rafael		2003	15			4-5 years	WD				1/1 to 12/31	NOAA/steelhead/salmon	
Main Ship Channel (Corps)	San Francisco	500	RB	2011	Annual		H	SF-8 SF-17					None	
Mare Island Dry Dock MIDD	Napa River	104		1994			C	SF-9	SAR Under review			8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	
Marin Yacht Club	San Rafael	7		2011	every 3 years		c		SAPunder review					
Marina Vista HOA	San Rafael	6.5		2010	every 4 years		c		SAPunder review					
Napa Flood Control	Napa River													
Napa Valley Marina	Napa	11.6	RBC	2009	Annual		suction	upland/beneficial reuse				Aug 1- Oct 15	DFW/NOAA/FWS/steelhead/ salmon/delta/ longfin smelt and clapper rail	disposal ponds on-site, own dredge equipment; 1600 permit processed; check BO
Oakland Inner and Outer Harbors (Corps)	Oakland	700	RB	2012	Annual		C	MWRP/SF-11/SFDODS / beneficial reuse				8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
Paradise Cay Homeowners	Tiburon	26.6	RBC	2010	every 4 years		C	SF-11	SAR Approved	June		6/1-11/30	DFG/herring, NOAA/steelhead/salmon	Episdoe Approval 5/06/14

		EPISODE VOLUME (Range in 1000 CYS)	PERMITS	LAST	FREQUENCY	CONTRACTOR		DISPOSAL	DMMO	EST. START	EST. FINISH	WORK	CONSULT AGENCIES/ SPECIES	
PROJECT NAME	CITY/ LOCALE		OBTAINED	DREDGED			EQUIPMENT	SITE	STATUS	DATE	DATE	WINDOW		COMMENTS
Phillips 66 (aka Conoco Phillips)	Rodeo (San Francisco Refinery)	8.2	RBC	2012	Annual		C	SF-8, SF-9, upland				8/1 - 11/30	DFW/NOAA/FWS/longfin/delta smelt/salmon/steelhead	
Phillips 66 (aka Conoco Phillips)	Richmond						C					8/1 - 11/30	DFW/NOAA/FWS/longfin/delta smelt/salmon/steelhead	
Pinole Shoal	Pinole	101	B	2012	Annual		C	SF-10/SF-9				6/1 - 11/30	DFG/NOAA/longfin/salmon/steelhead	
Port of Oakland Berths 22,25,26,57,58,59	Oakland	15	B (C pending)	2013	Annual		C	SF-11, SF-DODS, Upland	Tier One Approved			8/1 - 11/30	DFW/FWS/NOAA/herring/longfin/salmon/steelhead	
Port of Oakland Berths 23, 30, 32, 35, 37, 55 and 56	Oakland	42.7	B (C pending)	2012	Annual		C	SF-11, SF-DODS, Upland	SAP Approved			8/1 - 11/30	DFW/FWS/NOAA/herring/longfin/salmon/steelhead	
Port of Redwood City	Redwood City		(C maintenace dredgin permit expired)											
Port of San Francisco, Berth 27	San Francisco	2008	60(C pending)	RB	2006		D	C				6/1 to 11/30	DFG/herring/NOAA/steelhead/salmon	
Port of San Francisco, Berths 80/92/94/96 Elaine Creek	San Francisco	2008	120 (C pending)	B	2005		D	C	SAP Approved			6/1 to 11/30	NOAA/steelhead/salmon	
Port of SF, Berth 35	San Francisco	62	BC	203	Annual		C	SFDODS				6/1 - 11/30	DFW/NOAA/herring/longfin/salmon/steelhead	
Redwood City (Corps)	Redwood City		RB	2011			knockdown							
Richmond Inner Harbor (Corps)	Richmond	150	RB	2012	Annual		C	SFDODS				6/1 - 11/30	DFG/NOAA/herring/longfin/salmon/steelhead	
Richmond Outer Harbor (Corps)	Richmond	156	RB	2012	Annual		C	SF-11/SF-10				6/1 - 11/30	DFG/NOAA/herring/longfin/salmon/steelhead	
San Rafael Rock Quarry	San Rafael	45	BC	2008	6 years		C	Montezuma, SF-10, SFDODS	SAP Approved			6/1-11/30	NOAA/steelhead/salmon DFG/longfin	
Strawberry Channel/Cove Apts	Mill Valley	2007	7		2006	10 years	SRC	C/H	SAR Approved			6/1-11/30	NOAA/steelhead/salmon DFG/herring USFWS/clapper rail	

		EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY	CONTRACTOR		DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	
PROJECT NAME	CITY/ LOCALE						EQUIPMENT						DFG/FWS/NO AA/longfin/ delta smelt/salmon / steelhead (depth > 10 ft)	COMMENTS
Suisun Bay Channel/ New York Slough (Corps)	Suisun	156	RB	2011	Annual		H	SF-16/SF-9				8/1 - 11/30		
Sunnyvale Boat Launch Ramp	Sunnyvale	0	RBC	2013	Annual		E	Upland	n/a	5/15	5/18	NA		complete
Tesoro	Carquinez	5		2005	7 years		C	WI				8/1 - 11/30	DFG/FWS/NO AA/longfin/ delta smelt/salmon / steelhead (depth > 10 ft)	
Valero	Carquinez	80	RBC	2012	Annual (4-5 times/yr)		C	Montezuma, SF-9					DFG/NOAA/h erring/ longfin/salmo n/steelhead	
Vallejo Marina North and South Basins	Vallejo	79		7/4		SRC	C	SF-9				8/1 -10/15	DFG/FWS/NO AA/longfin/ delta smelt/salmon / steelhead	
Vallejo Yacht Club	Vallejo	2008	16.6	C	2005		WD	C		9/12	11/12	8/1 to 10/31	FWS/Delta smelt NOAA/steelh ead/salmon	Requires a Streambed Alteration permit.
West PAC Energy	Pittsburg	170					C	WI/ Montezuma				8/1 - 11/30	DFG/FWS/NO AA/longfin/ delta smelt/salmon / steelhead (depth > 10 ft)	Mainly sand, may take some to Antioch Dunes (Sacramento District ACE)
WETA SF Bay	Alameda	47.1	(C pending)	new				upland/dods						

PROJECT NAME	CITY/ LOCALE	EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACT OR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Aeolian Yacht Club	Alameda	22	RBC	2010		Salt River	C	SF-11, SFDODS	Tier I Approved	October	November	8/1-11/30	NOAA/steelhead/salmon DFW/herring USFWS/least tern	Some eelgrass near basin, mercury; SUAD in-Bay for upper material and NUAD in-Bay for lower. All material SUAD SF-DODS. Only proposing to dredge the SUAD material in 2015. Required eelgrass monitoring.
Alameda Point Channel (City of Alameda)	Alameda	890	RBC	2011	3-4 yrs		C	SF-11, SFDODS, BRU	SAP approved			8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
Ampports	Benicia	18	RBC	?	?	?	C	SF-9, Upland	Tier I Approved	October	November	8/1 - 11/30	Delta smelt/steelhead/Chinook salmon	Not sure that this project has started yet for 2015...
Benicia Marina	Benicia	15	RBC	2013	Annual	Salt River	C	SF-9		8/10		8/1 - 11/30	DFW/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
BP Terminal	Richmond	11.2	BC	2013	Annual		C	SF-11				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Brisbane Marina	Brisbane	109	RBC	2001	14 years	Dutra	C	SF-11,	SAR Approved	June	September	6/1-11/30	DFW/NOAA/herring/longfin/salmon/steelhead	Project finished up in June 2015. will have additional material to dredge in 2016 for their second episode of dredging.
Chevron Long Wharf	Richmond	150	RBC	2014	Annual	Dutra	C	SFDODS MWRP 80%; SF-11 20%	SAR Approved	October	November	6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	Currently in progress?
Clipper Yacht Harbor, Basin One	Sausalito	60	RBC	2007	3-4 years		C	SF-11, SF-DODS	SAP Approved			6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead/ coho	
Clipper Yacht Harbor, Basin Two, Three, Four	Sausalito					Dutra	C	SF-11		10/12	11/30	6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead/ coho	Will begin dredging Basins 2,3,4 but will complete in 2016. Use of silt curtains to protect eelgrass beds. Some contamination issues
Corinthian Yacht Club	Tiburon	22	BC	2008	4 years	Salt River	C	SF-11	Tier One Approved	July 3, 2015	15-Oct-15	6/1-10/31	NOAA/Steelhead/salmon DFW/herring	work completed in 2015
Emery Cove Marina	Emeryville	72		2008				SF-11	SAP under review			8/1-11/30	DFW/NOAA/USFWS/herring/ longfin/salmon/steelhead/ least tern	All permits expired
Ferro Property	San Rafael		RBC	1980s			C	SF-11, 10	Tier I Approved			6/1 - 11/30	MWRP S/DFW/herring/ longfin/salmon/steel head	waiting to hire dredger, would like to partner with Aqua Vista
Greenbrae Marina - Larkspur Marina	Larkspur	48	RC	2011	4 years	Salt River	C	SF-11, SF-10, upland	SAP approved	August	November	6/1-10/31	NOAA/steelhead/salmon/coho; DFW herring/Clapper Rail/Salt Marsh Harvest Mouse	Dredging - must stay outside of 250 feet from marsch until September; mercury issues; requesting extension to work until Nov. 30
IMTT	Richmond	6	C			Manson	C	upland (MWRP)	SAR Approved			6/1 - 11/30	CDFW/NOAA/herring/ longfin/salmon/steel head	will dredge in 2016 - Using environmental bucket to minimize suspended sediment impact on EFH; contaminated area
Kiewit Pacific	Vallejo	13	RBC	2001		Dutra	C	SF-9, Cullinan	SAR Approved	July	September	8/1-10/15	CDFW/USFWS/Delta smelt	Project finished in September 2015

PROJECT NAME	CITY/ LOCALE	EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACT OR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Larkspur Ferry Terminal	Larkspur	602 for 2015; 602 for 2019	C	2011			C	SF-9/SF-10/SF-11/SF-DODS/MWRP/CR/WI	SAP approved; SAR under review	September	November	6/30-10/30, approved extension from NMFS through 11/30; after 8/1 within 250ft of marsh adjacent to Terminal (clapper rail window)	NOAA/steelhead/salmon/coho; CDFW/USFWS/herring/Clapper Rail/Salt Marsh Harvest Mouse	ACE permit expires May 1, 2020; RB permit renewal pending; BCDC permit renewal pending
Loch Lomond Marina	San Rafael	100	RBC	2003	4-5 yrs	Salt River	C	SF-11, SFDODS, Upland	SAR Approved	5-Jun	30-Nov	6/1 - 11/30	NOAA/steelhead/salmon	Began early 2015 and not likely to finish the work, will do so in 2016.
Main Ship Channel (Corps)	San Francisco	500	RB	2014	Annual		H	SF-8					None	
Mare Island Dry Dock MIDD	Napa River	70	RBC	2014			C	SF-9	Tier One Under Review			8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	
Marin Yacht Club	San Rafael	29		2011	every 3 years	Salt River	c	SF-10	Tier I Approved			6/1-11/30	DFW/NOAA/herring/longfin/salmon/steelhead/coho	
Marin Rowing Association	Greenbrae	3	RBC	2006		Salt River	C	SF-10	Tier I Approved	November	November	6/1 - 11/30	Pacific herring/steelhead/chinook salmon	Not sure that this project has started yet for 2015...
Marina Vista HOA	San Rafael	6.5		2010	every 4 years		c		Tier I Approved					
Oakland Inner and Outer Harbors (Corps)	Oakland	400	RB	2012	Annual		C	MWRP/beneficial reuse				8/1 - 11/30	DFW/FWS/NOAA/herring/longfin/salmon/steelhead/least tern	
Paradise Cay Yatch Club	Tiburon	26.6	RBC	2010	every 4 years	Salt River	C	SF-11		7-Aug-15		6/1-11/30	DFW/herring, NOAA/steelhead/salmon	should be near completion
Paradise Cay HOA	Tiburon					Salt River	C	SF-11	Tier I Approved	17-Jul-15		6/1-11/30	DFW/herring, NOAA/steelhead/salmon	in 2015 completed work started in 2014
Phillips 66 (aka Conoco Phillips)	Rodeo (San Francisco Refinery)	6	RBC	2014	Annual	Dutra	C	SF-8	Tier I Approved	October	November	8/1 - 11/30	DFW/NOAA/FWS/longfin/delta smelt/salmon/steelhead	Not sure that this project has started yet for 2015...
Pinole Shoal	Pinole	150		2014	Annual		C	SF-10/SF-9				6/1 - 11/30	DFW/NOAA/longfin/salmon/steelhead	
Port of Oakland Berths	Oakland	143	RBC	2013?	Annual	Dutra	C	Upland (MWRP)	Tier One Approved	October	November	8/1 - 11/30	DFW/FWS/NOAA/herring/longfin/salmon/steelhead	In progress...
Port of Redwood City Wharves 1, 2, 3, & 4	Redwood City	50	B	2010	every 4-5 year		C	SF-11/SFDODS	SAP Approved	November	11/30	6/1 to 11/30	CDFW/NOAA/herring/longfin	SAR cleared by DMMO, got WQC and scheduled to begin mid November
Port of Richmond	Richmond	23					C		SAP Approved			6/1 to 11/30	CDFW/NOAA/herring/longfin/least tern	

PROJECT NAME	CITY/ LOCALE	EPISODE VOLUME (Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY (if known)	CONTRACT OR (if known)	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	EST. START DATE	EST. FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Port of San Francisco, Berth 27	San Francisco	knockdown	RBC	2014	Annual	Dutra	C	BRU/ SFDODS	Tier I Approved	June??	??	6/1 to 11/30	DFW/herring NOAA/steelhead/salmon	proposed to do a knockdown due to limited material in the berth, but there does not appear to be information indicating whether or not the knockdown was conducted
Port of SF, Berth 35	San Francisco	90	RBC	2014	Annual	Dutra	C	SFDODS	SAR Approved, requested additional PAH testing	20-Oct-15	After Nov. 30	6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	Haven't started dredging yet, and already asking for a time extension
Port of San Francisco, Berth 94/96	San Francisco	18.5	RBC	2004		Dutra	C	SF-11	Tier I Approved	6/1/2015	6/30/2015	6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	Finished up in early June 2015 and ended up dredging only about 3000 cy??
Redwood City (Corps)	Redwood City	350		2014			C	SFDODS		11/15	11/30	6/1 - 11/30		Scheduled to begin mid-November - if not finished will need to go upland after 11/30
Richmond Inner Harbor (Corps)	Richmond	250		2014	Annual		C	BRU/SFDODS				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Richmond Outer Harbor (Corps)	Richmond	250		2014	Annual		C	SF-11/SF-10				6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
San Francisco Marina West	San Francisco	10	RBC	?		Dutra	C	San Rafael Rock Quarry	Tier I Approved	November	November	6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	Not sure that this project has started yet for 2015...
San Rafael Rock Quarry	San Rafael	45	BC	2008	6 years		C	BRU/ SFDODS	SAR Approved			6/1-11/30	NOAA/steelhead/salmon DFW/longfin	
Strawberry Channel/Contra Costa Ave Apts	Mill Valley	7	C	2014	10 years	Salt River	C	SF-11/SF-10	SAR approved			6/1-11/30	NOAA/steelhead/salmon CDFW/herring USFWS/clapper rail	Amending permit to include 3 new docks to dredge in 2016
Suisun Bay Channel/New York Slough (Corps)	Suisun	150		2014	Annual		H	SF-16/SF-9				8/1 - 11/30	DFW/FWS/NOAA/longfin/ delta smelt/salmon/ steelhead (depth > 10 ft)	
Sunnyvale Boat Launch Ramp	Sunnyvale	0	RBC	2014	Annual	own crew	E	Upland	n/a	5/15	5/18	NA		permit amended for another 10 years, work completed for 2015
Valero	Carquinez	56	RBC	2014	Annual (4-5 times/year)	Dutra	C	MWRP, SF-9, SF-DODS, Beneficial reuse/WI	SAR Approved	April	December	All year	CDFW/NOAA/longfin/salmon/steelhead	Dredged in early January 2015 as a continuation of 2014 dredging. Conducted a knockdown event in July 2015
Vallejo Ferry	Vallejo	7	C	2011	3 years		C	SF-9	SAR Approved	August	?	8/1-10/15	CDFW/NOAA/herring/longfin/salmon/steelhead	Not yet sure if this project was completed in 2015

PROJECT NAME	CITY/ LOCALE	(Range in 1000 CYS)	PERMITS OBTAINED	LAST DREDGED	FREQUENCY	CONTRACTOR	EQUIPMENT	DISPOSAL SITE	DMMO STATUS	START DATE	FINISH DATE	WORK WINDOW	CONSULT AGENCIES/ SPECIES	COMMENTS
Alameda Point Channel (City of Alameda)	Alameda	890	RBC	2011	3-4 yrs				SAR approved			8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
Alameda Base USCG	Alameda			2011	4 ys							8/1 - 11/30	DFG/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
Amports	Benicia	20	RBC	?	Annual							8/1 - 11/30	Delta smelt/steelhead/Chinook salmon	
Benicia Marina	Benicia	15	RBC	2013	Annual							8/1 - 11/30	DFW/FWS/NOAA/herring/ longfin/salmon/steelhead/ least tern	
BP Terminal	Richmond	15	BC	2013	Annual							6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Chevron Long Wharf	Richmond	200	RBC	2014	Annual							6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Clipper Yacht Harbor, Basin Three	Sausalito		RBC	2015	3-4 years				SAR Approved			6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead/coho	Basin 2 & 4 were dredged in 2015
Emery Cove Yacht Harbor	Emeryville			2010					SAR Approved			8/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead/least tern	
Foster City Lagoon Intake Structure	Foster City			?								6/1 - 11/30		
Golden Gate Base USCG	Sausalito			2010	5 years							6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead/coho	
Greenbrae Marina - Larkspur Marina	Larkspur	48	RC	2015	4 years				SAR approved			6/1-10/31	NOAA/steelhead/salmon/coho ; DFW herring/Clapper Rail/Salt Marsh Harvest Mouse	Portion dredged in 2015, need to complete in 2016
IMTT	Richmond	6	RBC	2015	Annual							6/1 - 11/30	CDFW/NOAA/herring/ longfin/salmon/steel head	
JFK Boat Ramp	Napa			?								8/1 - 11/30	USFWS/CDFW/Delta Smelt Longfin smelt/steelhead/salmon	
Loch Lomond Marina	San Rafael	100	RBC	2015	10 yrs				SAR Approved			6/1 - 11/30	NOAA/steelhead/salmon	On basin completed in 2015
Main Ship Channel (Corps)	San Francisco	500	RB	2015	Annual				Tier One Approved				None	
Mare Island Dry Dock MIDD	Mare Island Strait	70	RBC	2015					Tier One Approved			8/1 to 11/30	Delta Smelt smelt/steelhead/salmon	
Miller Creek	San Rafael	9		?					SAR Approved			6/1-11/30	DFW/herring, NOAA/steelhead/salmon	

Napa River Federal Channel	Napa River			?					SAP Approved			8/1 - 11/30	USFWS/CDFW/Delta Smelt Longfin smelt/steelhead/salmon	
Oakland Inner and Outer Harbors (Corps)	Oakland	400	RB	2015	Annual				SAP Approved			8/1 - 11/30	DFW/FWS/NOAA/herring/ longfin/salmon/steelhead/least tern	
Paradise Cay Yacht Club	Tiburon	30	RBC	2010	every 4 years				SAR Approved			6/1-11/30	DFW/herring, NOAA/steelhead/salmon	Requesting Cullinan & Work Outisde Window
Phillips 66 (aka Conoco Phillips)	Rodeo (San Francisco Refinery)	6	RBC	2015	Annual							8/1 - 11/30	DFW/NOAA/FWS/longfin/delta smelt/ salmon/steelhead	
Pinole Shoal (Corps)	San Pablo Bay	200	RB	2015	Annual				Tier One Approved			6/1 - 11/30	DFW/NOAA/longfin/ salmon/steelhead	
Pittsburg Marina	Pittsbug	20		2009	6 years							8/1 - 11/30	DFW/NOAA/FWS/longfin/delta smelt/ salmon/steelhead	
Port of Oakland Berths	Oakland	100	RBC	2015	Annual							8/1 - 11/30	DFW/FWS/NOAA/herring/ longfin/salmon/steelhead	
Port of San Francisco, Berth 27	San Francisco	knockdown	RBC	2015	Annual				SAP Approved			6/1 to 11/30	DFW/herring NOAA/steelhead/salmon	
Port of San Francisco, Berth 35	San Francisco	90	RBC	2015	Annual							6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Port of San Francisco, Berth 94/96	San Francisco	18.5	RBC	2004	3-4 years							6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Redwood City (Corps)	Redwood City	350	RB	2015	annual/ 2 years							6/1 - 11/30	DFW/NOAA longfin/salmon/steelhead	
Richmond Ferry Terminal (WETA)	Richmond	25		new work	?				SAP Approved			6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Richmond Inner Harbor (Corps)	Richmond	250	RB	2015	Annual							6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
San Bruno Shoal (Corps)	San Bruno	9		?								6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	
Richmond Outer Harbor (Corps)	Richmond	250	RB	2015	Annual							6/1 - 11/30	DFW/NOAA/herring/ longfin/salmon/steelhead	

San Rafael Rock Quarry	San Rafael	45	BC	2008	6 years				SAR Approved			6/1-11/30	NOAA/steelhead/salmon DFW/longfin	
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LONG TERM MANAGEMENT STRATEGY

Agenda

Long Term Long Term Management Strategy Management Committee Meeting

Friday, February 19, 2015 ~ 10:30 AM – 12:30 PM
San Francisco Bay Regional Water Quality Control Board
Second Floor, Room 12
1515 Clay Street, Oakland (12th Street BART Station)

Public Session

- | | | |
|-------------|---|-----------------------------------|
| 10:30—10:40 | Welcome & Introductions | (Wolfe, RWQCB) |
| 10:40—10:45 | DMMO Update: 3-Year report | (Lawrence/Christian, USACE/RWQCB) |
| 10:45—11:00 | Beneficial Reuse Update | |
| | • Montezuma Wetlands | (Lipton, Montezuma) |
| | • Cullinan Ranch Wetland Restoration Project | (Carroll, Ducks Unlimited) |
| | • Eden Landing Restoration Project | (Bourgeois/Johnck, SCC/Johnck) |
| | • Bel Marin Keys Unit V | (Hutzel, SCC) |
| 11:00—11:40 | LTMS Studies – Update | |
| | • DMMO Database | (Ross/Goeden, EPA BCDC) |
| | • Smelt Entrainment Study | |
| | • Benthic Function Study | |
| | • Strategic Placement Framework | |
| 11:40—12:00 | Green Infrastructure Projects (Oro Loma) | (Holmes, The Bay Institute) |
| 12:00—12:30 | Other Items? | (All) |
| | • Thin Layer Placement Study Brown Bag | |
| 12:30 | Adjourn | |

U.S. Environmental Protection
Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

San Francisco Bay Conservation
and Development Commission
455 Golden Gate, Suite 10600
San Francisco, CA 94102

U.S. Army Corps of Engineers
South Pacific Division
San Francisco District
1455 Market Street
San Francisco, CA 94103-1398

San Francisco Bay Regional
Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

To: Robert.J.Lawrence@usace.army.mil[Robert.J.Lawrence@usace.army.mil];
echristian@waterboards.ca.gov[echristian@waterboards.ca.gov];
brendag@bcdcc.ca.gov[brendag@bcdcc.ca.gov]
Cc: Scianni, Melissa[Scianni.Melissa@epa.gov]
Bcc: thompson, rachel[thompson.rachel@epa.gov]
From: Ross, Brian
Sent: Wed 2/13/2013 12:27:09 AM
Subject: Heads-up: Upcoming Levin Terminal dredging project will need to be coordinated with Superfund too
[UnitedHeckathorn_lettertoLRTC_021213.pdf](#)

Hi Rob, Beth and Brenda:

Just making you aware that it is likely DMMO will some time soon be receiving a SAP for maintenance dredging of the Levin Terminal berth that is inside Lauritzen Canal (and therefore within the Superfund project area). EPA (Rachelle Thompson of Superfund has been discussing EPA's needs with the Levin folks, and Melissa and I helped put together the attached early input to them re.working with DMMO. the only "unusual" thing is that in this case EPA will need to get, and approve, the DOP when the time comes.

Brian D. Ross
EPA Region 9, WTR-8
Dredging & Sediment Management Team
75 Hawthorne Street
San Francisco, CA 94105
415-972-3475
Fax 947-3537

----- Forwarded by Brian Ross/R9/USEPA/US on 02/12/2013 03:46 PM -----

From: Rachelle Thompson/R9/USEPA/US
To: garyl@levinterminal.com,
Cc: John Lyons/R9/USEPA/US@EPA, Melissa Scianni/R9/USEPA/US@EPA, Brian
Ross/R9/USEPA/US@EPA
Date: 02/12/2013 01:51 PM
Subject: Initial EPA comments on proposed United Heckathorn dredging

Good afternoon,

Here is an electronic copy of the letter that was mailed to you today regarding the United Heckathorn Superfund Site.

Sincerely,

Rachelle Thompson, MS, PE
Environmental Engineer, Superfund Division
US Environmental Protection Agency Region 9
75 Hawthorne St, SFD-7-3
San Francisco, CA 94105
(415) 972-3962
thompson.rachel@epa.gov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

February 12, 2013

Mr. Gary M. Levin
President and CEO
Levin Richmond Terminal Corporation
4012 Wright Avenue
Richmond, CA 94804

Dear Mr. Levin,

Thank you for informing the United States Environmental Protection Agency (EPA) of your interest in conducting maintenance dredging at Berth B of the Levin Richmond Terminal Corporation. Based on the draft Proposed Scope of Work prepared by Pacific EcoRisk, the work you would like to complete is located in the Lauritzen Channel, which is part of the United Heckathorn Superfund Site. Therefore, EPA's primary requirement is that your work neither interferes with EPA's ongoing feasibility study and future remedy for the site, nor spreads contamination from the site to adjacent waterways.

Because your proposed work is a maintenance dredging project and not a Superfund project, the Dredged Materials Management Office (DMMO) agencies will be the permitting authorities. Therefore, EPA requests that you develop and submit a Sampling and Analysis Plan (SAP) to the DMMO as would normally be required for this type of project. In this case, because of the location of the project, EPA also requests the opportunity to review and approve the Dredge Operations Plan (DOP) you will prepare for the DMMO agencies prior to commencing work. Please send Superfund a copy of any documents that you submit to the DMMO. For your reference as you prepare the SAP and DOP, EPA has the following initial comments:

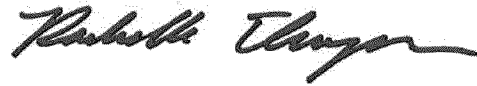
1. EPA recommends z-layer sampling as follows: at each core location, collect and separately archive a 6-inch "z-layer" sample from below the total proposed dredging depth (project depth plus overdepth). Specifically, dredging is proposed for -33 ft MLLW, + 1 additional foot of overdepth, for a total dredge depth of -34 ft MLLW. Thus, the cores should be taken 6 inches deeper, to -34.5 ft MLLW. The lower 6 inches should be separated from each core before the rest of the core is homogenized or composited with sediments from any other cores for testing. These samples can then be used if needed to characterize DDT, dieldrin, and other contaminants determined by the DMMO in the likely post-dredge surface, in comparison to the overlying sediment. Depending on overlying sediment chemistry results, it may become necessary to spatially characterize contaminants other than DDT and dieldrin in the z-layer. As currently proposed in the

draft Scope of Work, other contaminants would only be evaluated in the single berth-wide composite, so spatial characterization would not be possible.

2. EPA recommends evaluating PCB congeners, as well as DDT and dieldrin, on the individual cores. The DMMO will likely ask for the Regional Monitoring Program list of 40 congeners for comparison with San Francisco Estuary Institute's multi-year Bay-wide database, and to be consistent with the Bay's Total Maximum Daily Load for PCBs.
3. The proposal mentions a silt curtain as a potential mitigation measure only. Given the known pesticide contamination at the site, EPA will require the use of a silt curtain during any dredging activities in the Lauritzen Channel. At a minimum, the procedures employed during the previous dredging in 1996-1997 should be used. The DOP should discuss the size, type, location, and operation of the silt curtain very specifically.
4. Another key issue is the proposed use of an environmental bucket for the dredging. Specific requirements for configuration and operation are necessary for a CableArm or similar bucket to actually minimize sediment resuspension and transport, and local turbidity. For example, sealed vents reduce sediment fall-back as the bucket is raised through the water column. Additionally, slower bucket drop and retrieval speeds than are used in typical dredging are usually required. The proposal to allow free water to flow from the bucket back into the water is counter to this concept. It also appears internally inconsistent, because free water in the scows is proposed to be pumped to Baker tanks and subsequently treated.
5. Dewatering cell(s) should be described in more detail. Avoiding leakage from rail cars after dewatering is mentioned, but not containing any water from the dewatering cell(s). At a minimum, the DOP should note whether there would be any physical containment features for any remaining free water such as plastic sheeting over the K-Rails. Again, any lessons learned from similar dewatering operations at this same location should at least be mentioned.
6. EPA recently completed a bathymetric survey of the entire Lauritzen Channel, including the area near Berth B, to support a feasibility study. Since the proposed dredging would clearly modify the surface of the channel sediments, EPA will require that the Levin Richmond Terminal Corporation conduct new side-scan sonar and multi-beam surveys of the Lauritzen Channel soon after the dredging is finished. This may suffice for the DMMO agencies' post-dredge survey needs as well, if coordinated with them in advance.

For questions about the Superfund Site, please contact me at 415-972-3962. For questions about EPA's dredging requirements, please contact Melissa Scianni or Brian Ross of EPA's Water Division at 415-972-3821 or 415-972-3475, respectively. For legal questions, please contact John Lyons of EPA's Office of Regional Counsel at 415-972-3889. Thank you for your ongoing cooperation with the cleanup of the United Heckathorn site.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachelle Thompson". The signature is fluid and cursive, with the first name "Rachelle" being more prominent than the last name "Thompson".

Rachelle Thompson, MS, PE
Remedial Project Manager
Superfund Division, SFD-7-3

cc: John Lyons, USEPA Office of Regional Counsel
Melissa Scianni, USEPA Water Division
Brian Ross, USEPA Water Division

To: garyl@levinterminal.com[garyl@levinterminal.com]; Jim Cannon (jimc@levinterminal.com)[jimc@levinterminal.com]
Cc: Debra A SPN O'Leary (Debra.A.O'Leary@usace.army.mil)[Debra.A.O'Leary@usace.army.mil]; Brenda Goeden (BrendaG@bcdcc.ca.gov)[BrendaG@bcdcc.ca.gov]; Aarreberg, Arn@Wildlife[Arn.Aarreberg@wildlife.ca.gov]; Scianni, Melissa[Scianni.Melissa@epa.gov]
From: Christian, Elizabeth@Waterboards
Sent: Thur 5/30/2013 6:31:05 PM
Subject: Approval of Levin-Richmond Terminal 2013 Dredging Episode
DREDGED MATERIAL OFFLOADING & CONTAINMENT DESIGN 5-21-13.pdf

Dear Mr. Levin,

Please accept this electronic transmittal as proof of Water Board staff's approval of the proposed advance maintenance dredging episode consisting of mechanically dredging approximately 3,600 cy of sediment from a 25-foot wide trench running along the face of the Berth A wharf to a depth of -45 feet MLLW and placing the material at the Berth B rehandling site for drying prior to transport to the Portrero Hills Landfill or other permitted landfill. Dredging and offloading will be performed as described in the May 6, 2013, Dredging Operation Plan prepared by The Dutra Dredging Company and as shown in attached supplemental figure showing a cross section of the dredged material offloading and rehandling area containment system.

In accordance with Section 401 of the Clean Water Act and State regulations in Title 23 California Code of Regulations Section 3830 et. seq., the proposed dredging episode is permitted by your existing Water Quality Certification dated November 16, 2011, as long as all conditions are met, including adherence to the Levin Richmond Terminal Corporation Maintenance Dredging Dredge Materials Rehandling Area On-site Maintenance and Operations Plan attached to the certification. Should you have any questions regarding your certification, please contact me.

Best regards,

Elizabeth Christian

Water Resource Control Engineer

e-mail address: echristian@waterboards.ca.gov

Regional Water Quality Control Board

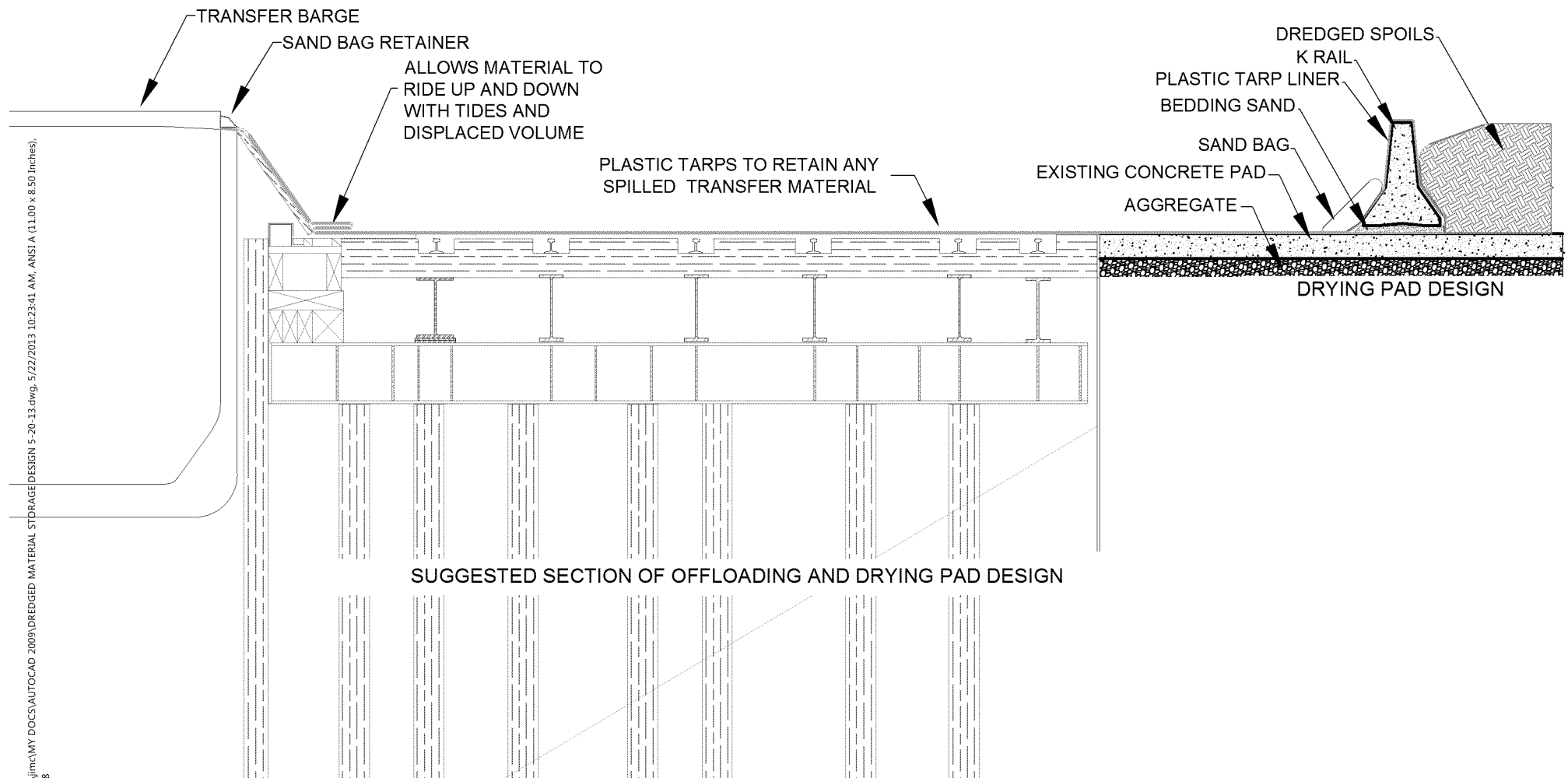
San Francisco Bay Region

1515 Clay Street, Suite 1400

Oakland, CA 94612

(510) 622-2335

C:\Users\jmc\My Documents\AUTOCAD 2009\DREDGED MATERIAL STORAGE DESIGN 5-20-13.dwg, 5/22/2013 10:23:41 AM, ANSI A (11.00 x 8.50 Inches), 1:10.3058



To: thompson, rachelle[thompson.rachelle@epa.gov]
From: Scianni, Melissa
Sent: Wed 5/29/2013 10:07:16 PM
Subject: FW: Levin dredging schedule

Sorry, did a reply all with Debra's incorrect spelling of your name.

From: Scianni, Melissa
Sent: Wednesday, May 29, 2013 3:06 PM
To: 'brendag@bcdcc.ca.gov'; 'Christian, Elizabeth@Waterboards'
Cc: 'O'Leary, Debra A SPN'; Ross, Brian; Jim Cannon; James Holland; thompson.rachelle@epa.gov
Subject: Levin dredging schedule

Hi Beth and Brenda,

I wanted to give you an update on the Levin dredging schedule. EPA, Corps, and Levin had a conference call this afternoon to work out the potential conflicts between planned EPA activities in the channel and proposed dredging activities. Here is what was agreed to:

1. There is no conflict between Dutra starting dredging June 1 and EPA activities. EPA understands that it will only take a few days for Dutra to complete the actual dredging.
2. Dutra will be dredging into two barges, which will be parked in Berth B for offloading over the next few weeks. Levin also has two other ships that will be coming into Berth B during June. There is a potential conflict between EPA activities and ships moving in and out of Berth B during June. EPA Superfund staff and Levin will coordinate their schedules to allow EPA access to the Levin Berth.

Hopefully this is adequate for you to move forward with approving the DOP. Please let me know if you have any questions for EPA.

Thanks,

Melissa

Melissa Scianni

Wetlands Office

US EPA, Region 9

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